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THE THEORY OF VALUE BEFORE ADAM SMITH.

BY

HANNAH ROBIE SEWALL, Ph.D.

AUGUST, 1901

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CHAPTER I.

VALUE BEFORE THE SIXTEENTH CENTURY—JUST PRICE.

The Greeks, in common with most ancient peoples, had no conception of "rational laws governing the phenomena of the distribution of wealth."[1] They studied human conduct to discover a man's duty, or to ascertain what kind of actions constituted noble lives, rather than to know the ultimate relations of all actions. Their object was practical rather than theoretical, and questions of economic relations were closely connected in their minds with questions of right and wrong, with problems of justice.

In consequence of this attitude the somewhat naïve conception of value (ἀξία),[2] or the worth of a thing, as a quality belonging to the thing itself, was not questioned. It was commonly held that the price ought to correspond to this quality, but that it often did not. Plato reflects this thought in the statement that, "when a man undertakes a work, the law gives him the same advice which was given to the seller, that he should not attempt to raise the price, but simply ask the value; this the law enjoins also on the contractor; for the craftsman assuredly knows the value of his work."[3] Even Aristotle, who was more scientific than Plato, held this same objective conception, but he recognized more clearly the influence of demand upon value. Aristotle's

[1] Cossa, Introd., 127.

[2] 'Αξία also meant weight, and as money was first passed by weight, ἀξία evidently signified the weight in money; but it also meant weight in the sense of importance, worth. See Liddell & Scott, *sub verbo*.

[3] Laws, book xi, ch. 921; Jowett, vol. 5., p 308.

explanation of value is not only interesting in itself but of great importance because of its influence upon later thought. He discusses the subject almost exclusively in connection with exchange. Exchange, he explains, is due to the needs of men, and arises from the circumstance "that some have too little, and others too much."[1] In order to be exchanged, things must be made equal to one another, and the resulting equation is an expression of value. But value has its basis in utility. "Of everything which we possess," he says, "there are two uses; both belong to the thing as such, but not in the same manner, for one is the proper, the other the improper or secondary use of it. For example, a shoe is used for wear, and is used for exchange; both are uses of the shoe."[2] If, in this passage, Aristotle does not make a clear distinction between value in use and value in exchange, he gives a basis for such distinction. But it is significant that he deems use in exchange to be a subordinate use. "He who gives a shoe in exchange for money or food to him who wants one, does indeed use the shoe as a shoe, but this is not its proper or primary purpose, for a shoe is not made to be an object of barter."[3] It is only because of its primary use that a shoe can be used in this secondary manner.

In the Ethics, Aristotle implies that value is expressed by the proportion in which things exchange for each other. Here he develops his idea of value as a part of the general subject of justice. He has come to that form of justice which he calls corrective justice, which is justice in private transactions whether voluntary or involuntary.[4] Voluntary transactions are such as "sell-

[1] Politics, book i, ch. 9; Jowett, p. 15.
[2] *Ibid.*
[3] *Ibid.*
[4] Ethics, book v, ch. 7; Welldon, p. 145.

ing, buying, lending at interest, giving security, lending without interest, depositing money, hiring."[1] In voluntary exchange a person makes a profit if he gets more than belongs to him. "But when people get as the result of exchange exactly what they had at the beginning, neither more nor less, they are said to have what belongs to them, and to be neither losers nor gainers. That which is just, then, in corrective justice is a mean between profit and loss. . . . It implies that the parties to a transaction have the same amount after it as before."[2]

But how is determined the proportion in which things are to be exchanged? Aristotle thinks that the problem would be easily solved if the labors that produced the things were equal, but, he says, "there is no reason why the work of one should not be superior to that of the other."[3] "For association is formed, not by two doctors, but by a doctor and a husbandman, and generally by people who are different, and not equal, and who need to be equalized."[4] The result of the equalizing will be a proportion in which the amounts of the goods to be exchanged will stand in inverse ratio to the persons who produced them, *i.e.*, "As a husbandman is to a cobbler, so is the cobbler's ware to the husbandman's."[5] In this illustration Aristotle thinks of the persons themselves where we should think of their services as productive agents.[6] But in order to determine the figures

[1] Ethics, book v., ch. 7, Welldon, p. 142.
[2] *Ibid.*, book v, ch. 8; Welldon, p. 149.
[3] *Ibid.*, p. 151.
[4] *Ibid.*, p. 153.
[5] *Ibid.*
[6] David Parke Ritchie in Palgrave's Dictionary, article "Aristotle," remarks that "We may perhaps make this idea intelligible to ourselves by thinking of the amounts to be given in exchange as in the *inverse ratio* to the value of an hour's labour of each producer."

of such a proportion, there arises the necessity of a "single universal standard of measurement." "This standard is in truth the demand for mutual services, which holds society together; for if people had no wants, . . . either there would be no exchange, or it would not be the same as now."[1] Demand finds a sort of recognized representative in money, which, therefore, "is like a measure that equates things, by making them commensurable."[2] Thus the demand which society has for mutual services is in Aristotle's view the force which determines the values of things and services. The money price is the expression of this value.

This explanation has been commented upon as merely an attempt to bring the familiar phenomena of exchanges into accord with the central thought of Aristotle's ethical philosophy,[3] that virtuous actions follow a mean between two extremes. Justice, *i.e.*, corrective justice, is a mean between profit and loss. That all exchanges were not just exchanges, that all prices did not represent that value which fulfilled the conditions of corrective justice, he was well aware. Money-making by means of exchange, especially by retail trade, he regarded with great disfavor. He especially condemned usury, the breeding of money from money.[4]

The Romans had no theory of value beyond a general conception of a degree of esteem (*estimatio*), or of an equivalence between two things (*pretium*), expressed by the amount of the price (also *pretium*). They recognized that value bore some relation to desire. Cicero, speaking of the great price of bronze statues, said:

[1] Ethics, book v, ch. 8; Welldon, p. 153.
[2] *Ibid.*, Welldon, p. 154.
[3] Bonar, Philosophy and political economy, p. 40.
[4] Politics, book i, chs. 9-10; Jowett, pp. 17-19.

"The only limit to the valuation of such things is the desire which anyone has for them, for it is difficult to set bounds to the price unless you first set bounds to the wish."[1] But in the main they held that the value of goods commonly exchanged did not depend upon desire but upon what they could sell for, *i.e.* the price; thus Seneca says: "the price of anything is a temporary accident; however much you may praise your wares, they are worth only as much as they will sell for."[2] Yet he had just said "that some things are of greater value than the price which we pay for them." He does not explain the difference between these two aspects of value.

The conception of the relation between price and value was vague and undefined. Writers upon the law describe price as meaning money accepted in payment for a thing bought, the emphasis being upon money as one of the articles exchanged rather than upon the amount of money accepted. Thus the jurist Paulus in describing the origin of sales said: "In early times there was no money, and no distinction in language between 'wares' and 'price', but after the invention of money the word 'wares' is no longer used of both the articles exchanged, but one of them is called the 'price' — so the wares and the price are different things."[3] Some, on the basis of passages in Homer, thought that if a good was given in payment for a thing bought,[4] the good might be considered as the price. But Paulus thought that such a transaction was not a sale, but a case of barter, in which there is no 'price'. The use of money as the price would in time lead to the association

[1] In Verrem, book iv, ch. 7.
[2] De beneficiis, book iv, ch. 25.
[3] Dig., book xviii, tit. i, § 1.
[4] Institutes of Justinian, book iii, tit. xxiii, § 2.

of the concept price with the quantity accepted in an exchange. Furthermore the money being in fact the quantitative expression of the exchange value of the thing bought, there can be little doubt but that the Romans, like most people of to-day, did not distinguish between the value which appears in an exchange, and price, but used the concepts interchangeably. Indeed the two ideas were, as already indicated, expressed by the same term, *pretium*. *Pretium*, however, does not appear to have been an exact equivalent of the modern expression, value-in-exchange; it did not have the same technical signification. It may be said that the Romans apprehended, without comprehending, value-in-exchange. They were not writing treatises upon economic conceptions, but were merely expressing certain relations which occurred in practical life. They did not attempt to discover how prices are determined. In an award of damages it was necessary to have some guide to a fair price. But Paulus writing on this subject was satisfied with maintaining that the price is a common function. He quoted Pedius who said that "the prices of things are to be determined neither with reference to affection nor to their utility to single individuals, but prices have a common validity, (*communiter fungi*)"[3]. Prices were in fact determined by the unrestrained agreement of contracting parties; how they happened to have a "common validity" no Roman undertook to explain.

The Romans were not dominated, as were the Greeks, by ethical conceptions. They did not, like Aristotle, seek to know what prices would accord with the principles of justice, nor like the canonists of later times urge that in every transaction a just price should be

[3] **Ad legem aquillam, Dig. book ix, tit. ii, § 33.**

realized. A rescript of Diocletian permitted a seller to recover if the thing were sold for less than half its true price (*verum pretium*) or value.[1] This was thought by the Christian Fathers to constitute a limitation upon the freedom of contract, and is held by a modern authority [2] to indicate some intention to regulate price according to ethical conceptions. But it seems to have been intended to apply only in special cases. The law permitted almost absolute freedom of contract. It even went so far as to allow that, as was said by Paulus, "In buying and selling a man has a natural right to purchase for a small price that which is really more valuable, and to sell at a high price that which is less valuable, and each may seek to overreach the other."[3] In this quotation and also in the language of the rescript there is indicated a conception of a definite "value", a characteristic of the particular thing, of which the price may not be an equivalent. It may be said that the Romans apprehended value in two aspects, viz., personal esteem and the esteem of the buying and selling public, that the latter was commonly regarded as expressed by the price, but that there was no essential relation between price and value in the first aspect.

In Greece and Rome economic activities were subordinate to political and esthetic interests, and the study of economic problems therefore was subordinate to the solution of the more important problems of ethics and jurisprudence. There was no investigation of economic phenomena for their own sake. Yet both of these societies had reached a comparatively advanced stage of industrial development. Money economy had

[1] Ashley, vol. 1, p. 208, n. 19.

[2] Endemann, vol. 2, p. 30.

[3] Quoted by Ashley, vol. 1, p. 132; p. 208, n. 18.

long been established; there was borrowing and lending of money; production had become capitalistic; and commerce, both foreign and domestic, was active and enterprising. With the barbarian invasions all this was changed. Enterprise ceased and the commercial life of the ancient world was supplanted by a more primitive economy which was destined to prevail throughout Europe for many centuries.

The economy of the barbarians was a natural economy, "a kind of economy," says Prof. Ashley, "in which land was given for service, service given for land, goods exchanged for goods without the intervention of a currency at all."[1] But the economy of the barbarians was characterized not only by an absence of money, but also by an absence of bargaining. Their society was a plexus of personal relationships acquired by birth. Each man was rewarded for his services according to the social status into which he had been born; if a serf he was entitled only to a serf's pay, if a lord he was rewarded as a lord. The conception of value implied by this system is often regarded as a simple labor theory. But it must be remembered that the worth of any good or service was not thought to be determined according to the time or ability of the person making the good or performing the service, but according to his rank in society and the scale of living necessary to maintain that rank. That is, the value of the goods or services depended upon the social rank of the laborer,[2] not on their want satisfying power to the user, which was not thought of except in the broadest and vaguest way.

Society for many centuries after the barbarian inva-

[1] Economic history, vol. 1, p. 43.

[2] Cf. Aristotle: "As a husbandman is to a cobbler, so is the cobbler's ware to the husbandman's." See ante, p. 3.

sions was composed of communities which, for the most part, were economically self-sufficient and socially independent of each other. Contact with southern civilization, however, created a taste for articles of luxury which travelling merchants brought to the more powerful over-lords, and there was some trading in the necessaries which could not well be produced on the manor. In a few towns of considerable size a trade in food stuffs and manufactured articles sprang up and was carried on by persons to whom special privileges had been granted, but who continued to cultivate the soil. In time there also appeared in the towns handicraftsmen, who lived solely by practicing their arts and crafts.

About the year 1000 a money economy began, here and there, to supplant the natural economy. During the three following centuries it gradually spread throughout all Europe. The customary services and dues in kind in the village communities were commuted by the over-lords into money payments. The use of a medium of exchange which made it possible to produce for a market, lead to a diversification of employments and the development of classes devoted exclusively to some one vocation.

When a natural economy is supplanted by a money economy, and producers become specialists, the satisfaction of wants comes to depend, in the first instance, upon purchase rather than upon production. That is, the individual who wants anything, goes out and buys it, instead of sitting down and making it, as under a natural economy he would commonly have been obliged to do. Thus the importance of buying and selling in the daily lives of the people becomes immensely increased. It is well known that the ideas

of people are often far behind what their circumstances would lead one to expect. Although the change to a money economy was virtually completed during the middle ages, yet the labor theory of value which is characteristic of a natural economy remained and influenced profoundly most of the thought upon the subject during that period.

After the development of handicrafts the consumer supplied his need of manufactured articles by orders upon the craftsman's labor. The latter had no capital beyond his tools and shop. The consumer supplied the materials, paying only for the labor. This system prevailed everywhere for the first few centuries and in remote countries throughout the middle ages, so that the greater part of the wants of a community were satisfied by the labor performed in that community. Despite the gradually increasing use of a medium of exchange, society was still far from attaining the stage of a money economy such as we know to-day.

A circumstance having greater power to modify the conception of value, appeared in the development of a class of men who bought goods in order to sell them again, the professional trader and the foreign merchant. In foreign trade especially, the distance between the producer and the consumer was so much increased that the service rendered was taken to be that of bringing the goods to the market,[1] rather than that of manufacturing them. The original producer was so far removed from observation, that no estimation of value according to his social position could be made.

The commutation of services for money payments, the growth of handicrafts, the increase of commerce, all represent an industrial revival which began in the

[1] Endemann, vol. 2., p. 43.

11th century. The Christian theologians, who did the thinking for the middle ages, had their attention drawn to economic matters. The ecclesiastical jurists especially, in building up a body of law that should be to the church what the civil law was to the state, found the problem of value forcing itself upon their attention. In dealing with economic subjects they were not actuated by a desire to build up a science; their object was rather to establish rules for the guidance of human conduct. They were not seeking to explain phenomena, but to apply certain principles to existing social conditions, in order that human conduct might follow the course which seemed to them to be laid out for it by divine command.[1]

To the Christian teachers the increase of buying and selling seemed fraught with great spiritual danger. They had been accustomed to regard the amassing of wealth as sin, and had favored an economy based upon the common ownership of property. They were favorable to agriculture, they tolerated manufacture, but they condemned trading, for the latter made no new thing, but encouraged the pursuit of gain for its own sake.[2] Yet the great thinker, Saint Augustine, had seen that wealth could not be wholly condemned, and had argued that it was permissible for the laity to be rich provided they used their possessions for the good of mankind, and did not seek excessive wealth for its own sake. It was impossible also to deny the advantage of commerce,

[1] "It [canonist doctrine] differed from modern economics in being an 'art' rather than a 'science,' . . . . all art indeed in this sense, rests on science, but the science on which the canonist doctrine rested was theology." Ashley, Economic history, vol. 2, p. 379.

[2] While the schoolmen praised agriculture, they said of manufacture, "Deo non displicit," but of trade, "Deo placere non potest." Quoted by Roscher, Geschichte, p. 7.

and as it grew with the opening up of new trade routes and opportunities, the conservative position became more and more untenable. In view of the rapid industrial development wise churchmen recognized that the church, if she was to maintain her position as the pilot of the people, must steer with the current and not against it, that she should point out and define the conditions under which trading might be permissible, and not merely condemn it. The problem was two-fold: first, to reconcile a progressive money economy which they could not but see was advantageous to mankind, with Christian ethics which dwelt upon the spiritual danger of wealth and of gain for its own sake; and second, to protect the economically weak against the economically strong.

In the thirteenth century translations of the works of Aristotle began to be numerous, and the teachings of this great philosopher began at once to influence the thought of the schoolmen. His writings were found to lend a powerful support to their doctrines, and were constantly referred to as authority. Like him the Christian theologians believed that a just exchange was one in which equal value should be exchanged for equal value. They sometimes speak of value as a degree of esteem, sometimes as the attribute of a thing. But in general they conceive of everything that is exchanged as having some one true value, which is not known through individual esteem, but rather through the general estimation of the community. This depends, in turn, upon the labor that has been exerted upon the thing, estimated in accordance with the social rank of the laborer, and the standard of living that belongs with that rank. This idea, as we have seen, was the outcome of the still prevailing natural economy, and it was supported by

the scriptural text, "the laborer is worthy of his hire." Albertus Magnus went one step farther, he saw that there was a social necessity that the laborer should be paid his price, since otherwise the product of his toil would not continue to be supplied to the community.[1]

The justification of an exchange was to be found in the presence of a just price, which was that price which expressed the true value.[2] The Christian theologians thought that the prices, especially of articles of every day consumption, should be fixed by the civil authority; but as economic relations became complicated it became more and more difficult to recognize the just price; how this could be done by those whose duty it was to fix the price, was the problem they undertook to solve.

The most important treatise upon all the economic problems that interested Christian philosophers, was that contained in the Summa Theologica of Thomas Aquinas.[3] St. Thomas entered upon these subjects, however, not for the guidance of legislators, but because he was writing an encyclopedia of all theology destined particularly for the instruction of priests. His doctrines formed the basis of thought after his time and were much quoted and relied upon as authority.

Like Aristotle, he includes what he has to say on value and price in a treatment of the general subject of Justice. When he comes to justice in relation to trade, he sets himself the following questions to answer: 1. Whether it is allowable to sell a thing for more than it is worth. 2. Whether a sale is made un-

[1] He said: "Si enim lectorum factor pro lecto non tantum et tale accipiat, quantum et quale posuit in expensis, lectum de coetero non faciet et sit destructur ars quae lectorum factrix est." Quoted by Graziani, Teoria del valore, p. 14.

[2] Endemann, vol. 2, pp. 14, 36.

[3] Written between 1266 and 1274.

lawful by a defect in the article sold. 3. Is the seller bound to reveal a fault in an article? 4. Is it right in trade to buy cheap and sell dear?[1]

The first question he answers in the negative: 1st. On the ground that the thing proposed is against the Golden Rule. "But no one wishes a thing to be sold to him for a higher price than it is worth. Therefore no one ought to sell a thing to another for a higher price than it is worth." 2nd. That it is unjust in itself. "We can speak of buying and selling in two ways," he says, "on the one hand in itself; and on this score, buying and selling seems to have been entered into for the common advantage of both parties, since, indeed, one lacks what the other has, and the reverse, as is shown by the Philosopher in 1 Polit., Chap. 5 and 6. But what is entered into for common advantage ought not to be more burdensome to one party concerned than to the other. Therefore an agreement ought to be arranged between them in accordance with an equality of advantage. But the value of the property which is useful to man is measured by a price given; for this money was invented, as is said in V Ethic. And, therefore, if either the price exceeds the value, or conversely the value exceeds the price of the thing, the balance of justice is destroyed. And, therefore, to sell a thing dearer or to buy a thing cheaper than it is worth, is, in itself, unjust." The other case of buying and selling is where the need of the purchaser is so much greater than that of the seller, that he will suffer positive injury if he goes without the article he desires to buy. "In this case the just price will not only take in consideration the thing which is sold, but

[1] Summa Theologica, Secunda Secundae, Quaestio lxxvii. Thomae Equinatis Opera Omnia. Antwerp, 1612, vol. 19, p. 179.

the loss which the seller incurs from the sale. And so it would be possible lawfully to sell a thing for more than it is worth in itself, although it would not be sold for more than it is worth to the one possessing it." [1] This case is really an exception to the general principle already established, viz., that it is unjust to sell a thing for more than it is worth.

Apart from emphasizing the moral nature of the conception of just price, these quotations from Thomas Aquinas show first, that he assumes that everything has a true value, a "what it is worth," which is something belonging to the object itself, and is not necessarily expressed by what it sells for, *i.e.*, its price; and second, that this worth or true value is not necessarily the estimate which either the seller or the buyer, prompted by their needs or desires, may put upon it.

Aquinas and the canonists attached the same meaning to the word price that the term had in the civil law; that is, they meant by it the money given by a purchaser for goods obtained from a seller. They saw no necessary correspondence between value and price.[2] But if the quantity of money given equalled in value the goods purchased, then the price was a just one and might be said to express the value. This lack of essential correspondence between value and price was due to the character of the conception of value, not to the definition of price, which however serves to cast additional light upon it. The canonists did not mean by value

[1] Quaestio lxxvii, art. 1, Opera, vol. 19, pp. 179, 180.

[2] This is shown by the quotation just given. Aquinas' own words are: "Sed nullus vult sibi rem vendi carius quam valeat. . . . . Quantitas autem rei, quae in usum nominis venit, mensuratur secundum pretium datum, ad quod est inventum numisma, ut dicitur in V Ethic. Et ideo si pretium vel excedat quantitatem valoris rei, vele converso, res excedat pretium, tolletur justitiae aequalitas." Quaestio lxxvii, art. 1, Opera, vol. 19, p. 179.

what a thing would bring in the market, that is, exchange value, but some essential characteristic of the thing in itself. We have now to see what considerations established the worth of a thing in itself or its "true" value, as they conceived of it.

We shall be in a better position to answer this question when we have seen what Thomas Aquinas thought ought to be considered in estimating a just price. In his treatment of the second question, whether a sale is made unlawful by a defect in the article sold, to which the general answer is in the affirmative, he offers as a negative argument this: that many dealers are without the knowledge necessary to tell the true qualities of things. To which he replies: "It must be said, as Augustine said in XI De Civit. Dei (Cap. 16), that 'the price of salable things is not reckoned in accordance with the rank of nature, since sometimes one horse is sold for more than one slave; but is reckoned in accordance with the extent to which the things are useful to man. Therefore it is not necessary that the seller or buyer should know the hidden qualities of the thing sold, but only those through which it is rendered useful to man, for instance that the horse is strong and runs well. These qualities the buyer and seller can easily recognize."[1]

To the third question, whether a seller is obliged to reveal a fault in an article for sale, Aquinas answers that a seller may sometimes keep silent in regard to a secret fault provided the purchaser does not thereby suffer an injury. He then brings up this objection: that it is not necessary ever to reveal a fault, because sometimes the price is reduced when there is no fault, as when there is an increase in the supply of a commodity.

[1] Quaestio lxxvii, art. ii. Opera, vol. 19, p. 180.

To this he replies: "a fault in a thing causes it to be at the present time of less value than it appears. But in the case cited, the article is expected to be of less value in the future on account of the arrival of more traders whom the buyers are not looking for. Whence the seller who sells his wares at the price which he finds current does not seem to act contrary to justice, in not making known what is about to happen." "Yet if he made it known" St. Thomas adds, "or deducted from the price, it would be an act of greater virtue, although he would not seem to be bound to do this on the score of justice."[1]

In these passages Aquinas recognized that both the service-giving quality of an article, or its utility,[2] and the quantity offered for sale influence both value and price, and he held that the price determined by these influences was not unjust, provided that in the transaction there was no intention of fraud on either side. He had already described just price as the price which corresponds to what a thing is worth, its true value; in the last quotation he shows that the just price can be known by the price which the seller finds current on the market to which he brings his goods, *i.e.*, by the common estimation of what they are worth. But when other sellers bring more of the same goods and the price falls, that also is a just price, but each good has some one just price which may vary from time to time, according to the circumstances of the market. In another place he says, speaking of the restitution for injury done by a

[1] Quaestio lxxvii, art. iii. Opera, vol. 19, pp. 180–181.

[2] But the utility here referred to is usefulness in relation to an objective end. The utility of a thing in relation to individual need he has shown to be often in excess of value, "as happens when some one needs a thing especially, either for avoiding danger or gaining some advantage." Quaestio lxxvii, art. i, Opera vol. 19, p. 180.

wrongful price, that "the just price cannot always be exactly determined, but is rather a matter of estimation; so that a little added or taken away does not destroy the balance of justice."[1]

A specific statement of the items that ought to be considered in the estimation of the just price of anything is given by Aquinas in the reply to the fourth question. The first three questions had to do with buying and selling where the sellers had themselves produced the goods which they offered for sale. It is significant of the economy of the time that this case is treated of first as the most familiar kind of buying and selling. The case indicated by the fourth question, where the seller buys his wares for the purpose of selling them, had only lately come into prominence. The question whether it is just to buy cheap and sell dear, is not so easy to answer as the others, and requires careful consideration. Aquinas' reply is a qualified affirmative. He says, "To trade for the sake of obtaining the necessaries of life is lawful for all; but to trade for gain, unless the gain is destined to some honorable end, is in its nature base." The justness of the transaction lies in the motive of the trader. Such honorable ends are served "when one applies the moderate gain which he seeks by trading to the support of his household, or even to succoring the poor; or even when one gives his attention to trade for the public welfare, that, indeed, his native country may not be without things necessary to life; and he seeks the gain not as an end, but as the wages of labor." One can lawfully sell higher than he buys, "either because he has improved the article in some respect, or because the price of the article has been changed on account of difference of place or time,

[1] Quaestio lxxvii, art. i.

or on account of the danger to which he exposes himself in transferring the article from place to place, or in causing it to be transferred."[1]

The transaction being just under these circumstances, a price which includes a fair reward for the trader's service would be just. Thus the just price is a price which recompenses labor and risk, and recoups the merchant for any expenses that he has incurred in transporting the good to market. It is a price that covers all the expenses of production, and of bringing the article to market, but it should not be more than enough to cover these expenses, it should not include any elements of pure profit or gain on account of a differential advantage, since the gain which the merchant is allowed to make should be no more than can be properly considered as his wages. This gain ought to be no greater than what would accord with the proper standard of living for his class in society.

The idea which underlies the reasoning of Thomas Aquinas seems to be that while value is the importance attached to things either by individuals separately or by the community as a whole, the latter only is the "true" value that gives the measure of the just price. Thus the way by which the "true" value of goods produced at a distance could be known was by ascertaining the common estimation of the importance of the same goods in the place to which they were brought to be sold. Of goods produced at home the true value was very well known and was represented by a customary price. There was little difficulty in determining the just price so long as the prevailing economy remained close to the so called "natural" type, but when such complicating agencies as money and middlemen began

[1] Quaestio lxxvii, art. iv, passim. Opera, vol. 19, p. 181.

to appear this became difficult, because the true value itself or the community's estimate of many things fluctuated and they ceased to have a customary price.

Moreover, the idea of "true value" was associated with the social estimation of the sacrifice required to produce things, with the labor that had been expended upon them rather than with the satisfaction that would be derived from using them. The real worth of a thing was thus considered to be equal to its necessary cost. Aquinas, however, not failing to recognize that the useful qualities of a good often influence the estimation of its importance and thus help to make the value, accords utility a place among the items to be considered in reckoning price, but the main emphasis in his discussion is upon items of cost. This conception of cost as related to value had been considerably enlarged by the advent of the trader and importer, and the "true value" of a good brought from afar had come to be thought equal to a cost that included the labor of the merchant, his risks, and his expenses, one of which was that of transportation. The ideas of Aquinas regarding place utility were not very clear. Thus bringing goods from afar was not thought to add to their value because a good was more desirable at hand than at a distance, but because a certain expense needed to be recompensed.

The doctrine of just price gained distinctness and definition from the discussion of usury. Following the teaching of scripture the church had always maintained that it was wrong to take payment for the use of money, and had forbidden the clergy to accept such payments. Later, in the 12th century, this prohibition was extended to the laity. Growing industrial activi-

ties and better living had no doubt increased the demand for loans.

The prohibition was based not primarily upon the reason given by Aristotle that usury was the breeding of money from money,[1] but upon the distinction between "consumptibles" and "fungibles." The former were those goods that are consumed by using them, as food stuff; the latter those which are not so consumed, as a piece of land, in which case the use could be separated from the good and treated by itself. Money was classed with consumptibles; its use was in spending it and could not be separated from the thing itself, which was conceived to be consumed when the visible coin passed from the hand.[2] To lend money, therefore, according to Thomas Aquinas,[3] was tantamount to a sale, and to sell a thing and then demand payment for the use of it was unjust, for it was to demand payment for what did not exist. The fact that a considerable time might elapse between the conclusion of the so called sale and the payment for the thing bought by the return of the money did not justify an addition to the price, for it was said that time was common property, and no one had any right to buy or sell it.[4] The prohibition of usury was commonly evaded under the form of buying and selling, by giving credit to a buyer or permission to a seller to delay the delivery of goods,

[1] Politics, book I, ch. 10; see also Ashley, Econ. hist., vol. I, p. 152, *et seq*.

[2] "Pecunia autem, secundum Philosophum in quinto Ethicor et in primo Polit. principaliter est inventa ad commutationes faciendas; et ita proprius, et principalis pecuniae usus est ipsius consumptio, sine distractio, secundum quod in commutationes expenditur." Thomas Aquinas, Summa Theol. Secunda Secundae, Quaestio lxxviii, art. i. Opera, vol. 19, p. 182.

[3] *Ibid*, p. 181.

[4] Ashley, Econ. hist., vol. I, p. 156; Roscher, Geschichte, p. 7.

the consideration being in the first case an addition to the present price, and in the second, a deduction. This practice was declared to be sinful in a decretal of Alexander II, in 1176, and again by Urban III, in 1186.[1] In order to prevent this evasion of the usury prohibition, it became necessary that the conception of the just price and the marks by which it could be known should be clearly defined. The writings of the canonists, from Thomas Aquinas on, show that this necessity was well understood, and that the writers were well aware how easily a design to exact usury could be concealed under the form of a sale.[2]

During the time when the prohibition against the taking of interest was vigorously supported by the church there was virtually no capitalistic production, and but few opportunities for the profitable investment of money. Those who had money which they did not wish to use themselves, lost nothing by permitting it to be used by others who could give good security for its return. Since the original owner lost nothing during this time by not having in his possession that which he would not have used if he had had it, the canonists did not realize that time could have anything to do with value. The true value of a good was its current value in a community, the common estimation in which it was held. It was derived chiefly from a consideration of what the good had cost, of the just and appropriate remuneration for the labor that had been expended upon it, that is from the past of the good, from what had been put into it, rather than from what was expected to be gotten out of it.[3] Hence the value of a good that

[1] Endemann, Studien, vol. 2, pp. 4, 5.
[2] *Ibid.*, vol. 2, ch. 5, § 1.
[3] Cunningham, Eng. industry and commerce, vol. 1, p. 461.

was lent, a "consumptible", or a sum of money, was its current value in the community,—the value which it had to the lender, not that which it might have to the borrower, for on account of his needs it might have to him a greater value than the current value. Hence the conception that to this person a greater sum of money or a greater quantity of goods to be paid over at a future time might be of the same value as a smaller amount at the present time, was entirely foreign to canonistic thought. Thus, as they did not realize the influence of place on value, no more did they realize the influence of time. They did not consider that a good near the consumer in place and time is of greater value to him than the like good at a distance from him in both place and time.

The practical result of the doctrine of just price was the regulation of price by civil authority. This was thought to be especially necessary in the case of goods of common use, while rare articles, as paintings and statuary, or articles of luxury, were left to find their prices through free competition or local custom.[1] The multitude of laws having for their end not only the regulation of prices but of the currency, of weights and measures and the qualities of the wares offered for sale, in fact, "every sort of economic transaction in which individual self-interest seemed to lead to injustice,"[2] shows that the doctrines of the ecclesiastical teachers and legists were very generally accepted throughout Europe.

After the time of Thomas Aquinas both foreign and internal commerce developed rapidly. Western Europe became studded with local fairs, at which traveling

[1] Graziani, Teoria del valori, p. 77.

[2] Ashley, Econ. hist., vol. 1, p. 181.

merchants, following certain great routes of traffic, stopped to sell wares brought, perhaps, from far off India or China, and with the proceeds to buy goods that had been produced in the neighborhood, to carry away in their trains for sale at other fairs. Great trading centers, such as the Italian cities and Hanse towns increased in number and importance. In these cities manufactures, depending upon foreign trade for the disposal of their products, were carried on upon an extensive scale. There was everywhere a tendency towards greater division of labor and specialization of employment, accompanied always by a more extensive local traffic. This development reacted upon the theologians and upon their doctrines. The subjects of value, price, commerce and credit were discussed with increasing fullness; the earlier doctrines undergoing considerable modification and development.[1] Some of the more important writers were John Nider of Swabia, St. Anthony of Florence, and St. Bernard of Sienna.

The most important modification of the earlier doctrine showed itself in the tendency to neglect cost as the foundation of true or common value, and to substitute utility. Cost, however, was still reckoned in price. This tendency was due to increasing supplies of goods coming into the local market, which were produced at such a distance that little could be known of the cost of manufacturing them. Therefore the general or social esteem in which they were held was derived chiefly from the serviceable qualities of the goods, and from the desire which people had to possess them. This social esteem or common value, was sufficiently definite to be used in a

[1] For some account of the literature of trade and value, see Endemann, Studien, vol. 2, ch. 5, § 1; and Stintzing, Geschichte, p. 539. Also Cossa, Introduction, p. 150.

rough way to base the just price upon. But the merchant who brought in these goods performed a service for the community for which he should be paid. The social esteem or common value of the goods should be high enough to cover this item, or the trade would not be carried on. The common value was held to give, therefore, a starting point from which to reckon the just price.[1]

As to the formation of value, St. Anthony[2] considered that it was due to the interaction of three elements. First, the general usefulness of a good in satisfying wants; this he considered the cause of value. Second, its scarcity; this raises the value. Third, that quality which renders it more or less pleasing to the individual. This in special cases can be the cause of increasing price.

St. Bernard justified trade on the grounds of general utility, of special utility to the one who bought the goods, and of particular utility to the merchant on account of his profit. This profit he maintained was just, as the fruit of his industry, diligence and talent. "Just price," he added, "is what conforms to the valuation of the place, that is, to what the subject of a sale is commonly thought to be worth at such a time and at such a place;"[3] and when one transports goods from one place to another he can sell them at the price of the last place. Endemann points out that this circumstance gave the foreign merchant a great advantage over the local trader and even opened the door to speculative gain.[4] But it was a logical consequence of the doctrine that the just price should be reckoned from

[1] Endemann, vol. 2, p. 40, *et seq.*

[2] Summa Theologica. See Graziani, Teoria del valore, pp. 18, 19.

[3] S. Bernadino, Istruzioni morali succitali, pp. 107–110. See Graziani, pp. 19, 20.

[4] Studien, vol. 2, p. 45.

the common value of the place. St. Bernard also named the items that ought to be considered by public authorities in establishing legal prices. These were the natural utility of the good, its abundance or scarcity, the peril, fatigue and industry of those who procured it and preserved it and otherwise inconvenienced themselves for the advantage of others. The retribution for personal services, he considered, should depend upon the character of the services, whether skilled or unskilled, and their dignity.[1]

Nider,[2] whose treatment of the subject is more extensive and systematic than that of his predecessors,[3] named five points which it is necessary to consider in judging whether a price be just. First, whether the good "is better for human use", that is, from the point of view of the buyer. Second, whether it "is becoming better in the estimation of man", that is, whether a general demand for it is growing. "This might happen if it remained unaltered in quality or even became worse; especially if a new and unusual need for it developed, as a thing availing against infection since it might then be very properly sold dearer than at other times." In this connection Nider lays down the general principle that goods can be sold only as they are esteemed; but then, he says, every seller of a particular thing is a suspected judge, so one must heed the estimation of the generality. Third, protection against loss, but in this case a seller can not raise the price above the judgment of the buyers. Fourth, the service of the merchants, which Nider takes pains to justify, considering it as deserving of reward as that of the ar-

[1] Graziani, p. 19.
[2] He wrote Tractatus de contractibus mercatorum, 1435.
[3] Stintzing, p. 543.

tificer, for "the labor of the one may be just as pleasing and desirable to men as of the other." Fifth, whether the just price is known through law, custom, or through commerce. This is probably a reference to the three kinds of prices all of which existed in Nider's time, (1435), namely legal price, customary price, and competitive price. Nider finally said that, because of these circumstances, it may not be possible to discover the exact just price, and one will have to be satisfied with a probability.[1]

As a natural consequence of the growth of commerce which increased the number of articles actually sold at competitive prices, it became less and less easy to determine an exact just price; hence the canonists were compelled to allow some latitude. St. Anthony thought the price actually paid just, provided there was no excess against conscience. And Nider thought it was not necessary "to reach an indivisible point of equivalance." The just price might be so made up "that a small addition or diminution is not seen to bear against justice."

Thus the main modifications in the mediaeval doctrine of value and price after the time of Aquinas were, placing greater emphasis upon utility as the cause of value, and allowing greater latitude for variation in the just price. Just price was that price which paid for the labor, the expense, and risk of the merchant. It could conform to the value of the good both when derived from the intrinsic qualities which make it serviceable, and from the qualities which make it capable of satisfying some peculiar fancy or desire. There was a

[1] For a sketch of the contents of Nider's work see Endemann, Studien, vol. 2, pp. 7, 8. See also Zuckerkandl, Theorie des Preises, pp. 36, 37.

fundamental difference between the conceptions of usefulness and desirableness. The former was objective and social, the latter subjective and individual. The failure to reconcile these two conceptions, to comprehend subjective utility, was not confined to mediaeval thinkers, and is, no doubt, responsible for the comparative lateness of a satisfactory explanation of value on the basis of utility.

This sketch of the conception of value in the middle ages is not complete without some account of the ideas of the canonists upon the value of money. They recognized under the general conception of exchange or barter three different transactions, namely, the exchange of a thing with a thing, barter proper; of money with money, which was *cambium* or exchange in the narrow sense; and finally, of a thing with money, which was a sale.[1] Each was regarded as a complete transaction in itself, and hence the intermediary character of the last two was completely overlooked. Money was thought to have two functions; it served as a measure of value, by exchanging in turn for different wares; and it became a means of gain to its owner, by serving as an object of an exchange. In the latter case it occupied the position of the ware, while the money given for it was the price, called the *valuta*. The canonists, with their view of an objective true value which could not be known from subjective valuations, held fast to the opinion that when money was used as a medium of exchange the value was placed upon it by authority, that is, by the power which had the right of coinage. The value of money was, therefore, the nominal value of the coins.[2]

[1] Endemann, Studien, vol. 2, p. 11.
[2] *Ibid*, vol. 2, pp. 172–199.

The determination of the just price of money in the second use was a matter of great importance, first on account of the great number of civil powers having the right of coinage, and the many different kinds of coins; and second, on account of the ease with which the lending of money for usury might be concealed under the form of an exchange.

The exchange of money for money was regarded as exactly parallel to the exchange of goods for money, hence the permissibility of a particular case would be decided by the same rules. Technically the exchange was the barter of the money given by the money changer, *i.e.*, the seller, for the *valuta*, the money given by the buyer. If the *valuta* was greater than the sum exchanged for it, the excess was characteristically justified by the canonists on the ground of the labor or trouble to which the exchanger had been put to effect the exchange. His occupation was admitted to be serviceable and necessary to society, and therefore, deserved a suitable compensation.[1] No charges above this just reward ought to be permitted. There ought to be no giving or accepting payment for credit, since this would be usury. The trade of the money changer, like all other trade, they thought, ought to be regulated by the civil authority.

An exchange between moneys of different lands was known as a real exchange. The exchange between moneys of different kinds in different places was considered as an extension of the real exchange, and the exchanger was entitled to a recompense for the labor of transportation as well as for the labor of exchange. This latter exchange was usually effected by means of a bill of exchange on a distant place payable in the de-

[1] Endemann, Studien, vol. 1, pp. 211, 212.

sired kind of coin. There was no actual carrying of money, but later canonists considered that there was an imaginary transportation for which the exchanger was entitled to recompense.[1]

The actual rate of exchange did not follow the nominal value of the coin, but the value of the metal. This fact led the canonists gradually, as they came to lay greater stress upon objective utility as a basis of the value of goods, to the view that in the exchange of moneys the value of the money was founded upon its intrinsic goodness, that is upon the quantity and fineness the metal in the coin.

Roscher points out that the Christian theologians did not reach the conception of universal value, or value in the abstract; that they did not perceive that although material was used up and tools worn away that value remained, reappearing in the product; that, therefore, they failed to realize the nature of capital.[2] However this may be, they certainly "did not group together certain forms of wealth, employed for a particular purpose, under a general conception or designation."[3] Prof. Ashley maintains that "the absence of any such conscious grasp of the conception of capital as we now possess may, indeed, be traced back to the absence of a still more fundamental idea in modern economics, the idea of exchange-value (or of 'value' itself in the limited sense attached to the term by English writers). The thinkers of the middle ages only very gradually worked their way from the conception of a number of particular things possessing a value-in-use-to-particular-persons, to the conception of general exchanging and purchasing

[1] Endemann, Studien, vol. 1, pp. 110, 111.
[2] Geschichte, p. 7.
[3] Ashley, Economic history, vol. 2, pp. 394, 395.

power." "The conception of exchange-value" the same writer continues "could only come into existence as goods and services began to be increasingly exchanged one for another, instead of being made for the maker's own use; as they began to be increasingly reckoned in the same measure of value, and thus comparison became easy; that is, when a 'money economy' supplanted a 'natural economy.' The growth of the conception must have followed, and could not precede the growth of the fact." "It may be allowed" he adds, "that the thought of the canonists in this respect lagged behind the progress of circumstances." They were held back by their ethical and religious motives and prejudices. Hence, other circumstances besides favorable economic conditions were necessary for a more complete analysis of value, and for the special development of the conception of exchange value.

CHAPTER II.

VALUE IN THE SIXTEENTH AND SEVENTEENTH CENTURIES.—NATURAL VALUE AND EXCHANGE VALUE.

In the sixteenth and seventeenth centuries economic questions were no longer the concern exclusively of moralists and writers upon jurisprudence. The general substitution of an economy based upon buying and selling for that based upon personal service, and especially the growth of a national economy, gave new importance to industrial problems and brought into prominence a new class of writers known as empiricists. Whether the empiricists dealt with particular economic problems, such as are concerned with money, prices, or foreign exchanges, or developed empirical systems and discussed politics, the aim of their writings, one and all, was to advance the material prosperity of the nation to which they belonged. Thus their purpose, like that of the canonists, was practical, but their enquiries were concerned with the adaptation of means to ends, with the discovery and application of remedies for existing difficulties, while the mediæval moralists had been concerned only with the distinction between what is proper and permissible, and what is vicious. In the history of value, this difference is of great importance. To the canonists no other than an ethical view of the subject was possible. The purpose of their lay successors called not for a justification, but an explanation, of value. The problem is no longer what value should be, but what it is.

It is true that the ecclesiastical writers and moral philosophers who treated of value during the period now

to be considered, still held to the Aristotelian classification, making economics a part of politics and politics a part of ethics. In the systems of ethical jurisprudence, based upon the conception of natural law, it was necessary to discuss value and price before passing judgment upon those contracts which involve exchanges of things. The spirit and point of view of the churchmen and philosophers that treated value in this period were much the same as those of their predecessors, the canonists, but were somewhat altered by changed conditions and the views of the empiricists. The recognition of value as involving an economic as well as a moral problem, marks the most distinct advance.

The gradual turning of the scholastic philosophers, during the later middle ages, from the task of presenting doctrine to that of finding proofs, led to a revival of the study of nature, which was at length followed not so much for the sake of these proofs as for its own sake.[1] With this revival a renewed emphasis was placed upon natural law, which was considered to be a veritable branch of jurisprudence and the foundation of positive law. It was the law implanted in man by God and making itself felt through his conscience and reason. Grotius derived it from the "appetite" of man for society, by reason of which he "has a faculty of knowing and acting according to general principles," and also from God since the social nature of man was of divine origin.[2] Thus natural law having its origin in human nature, a previously established condition, it could not be altered by the author of that condition any more than he could prevent two and two from being four. Natural law was conceived to find its sanction

[1] Erdmann, History of philosophy, § 213.
[2] Grotius, De jure belli et pacis, prol. § 7 *et seq.*

in itself, since any act was obligatory or unlawful in itself, according as it was in agreement or disagreement with the rational or social nature of man, and hence commanded or forbidden by God, the author of nature.[1] The conception of natural law, therefore, placed before the minds of men a set of positive rules having divine sanction and made known to them in this character by the "dictate of right reason."[2] The general belief in the reality of such law was of immense usefulness in bringing about that criticism and reconstruction of systems of jurisprudence which constitutes the special contribution of these centuries.

The influence of this conception upon the particular subject that we have before us was of great importance. It justified what circumstances had increasingly brought about, namely, the determination of actual prices by competition, not by authority. Natural law did not deny but affirmed the old canonist principle that the validity of a contract depended upon the principle of equality of advantage. But it suggested the inference that if two persons, similarly situated, made an agreement and both were satisfied, in the very nature of the case neither would suffer any disadvantage, and if the agreement involved a price, that price would not be unjust.[3]

After touching briefly upon the views of some of the ecclesiastical moralists which may be considered fairly representative of the thought of the class upon value, we will consider more at length the views of

[1] Grotius, De jure belli et pacis, book i, ch. 1, § 10.

[2] *Ibid.*

[3] The earlier canonists probably would not have denied this proposition. They differed from these later writers, however, in believing that equality of advantage depended upon objective rather than upon subjective conditions.

Grotius and Puffendorf, representing the writers upon jurisprudence, and finally we will consider as representative of empirical thought the views of the Italians, Davanzati and Montanari, and of the Englishmen, Nicholas Barbon and John Locke.

The tendency to justify competitive prices is seen in the works of many Italian churchmen of the 16th century. Thus Sabba da Castiglioni upheld liberty of contract, although he believed that just and reasonable prices for public property should be determined by authority.[1] Also Buoninsegni, a friar who began life as a trader,[2] affirmed the existence of laws of trade independent of legislative will. He wrote that if buyers and sellers, without fraud or violence, contract freely, it lies in the very nature of the case that the price which is accepted by both will be just; a thing is worth as much as it commonly sells for, that is as much as the buyer and seller agree upon in the absence of fraud or blundering. The increase or decrease of any price is the result of mutual consideration at the time, of the abundance or scarcity of the subject of the transaction, and of the great or small number of sellers and buyers. "Therefore, when there is a plenty of buyers, price increases, and it decreases when there is a multitude of sellers." He also considered as legitimate a sale at a price somewhat higher when payment is to follow sometime after the delivery of the merchandise, because if the buyer accepts the agreement he cannot consider himself damaged.[3]

Somewhat similar language was used by Sig. Scaccia, an ecclesiastical jurist who, early in the seventeenth

[1] Graziani, Teoria del valore, p. 24.

[2] Cossa, Introduction, etc., p. 154.

[3] Tommaso Buoninsegni, Della traffichi guisti ed ordinarii, 1591. See Graziani, pp. 24, 25.

century, published an extensive work upon commerce and exchange[1] which reflected the most advanced views of his day; indeed, so liberal was his thought that for a time his work rested under the ban of the church, but was finally declared to contain nothing contrary to canon law.[2] He maintained that the just price was not an indivisible point but had an upper and lower limit; that there was a highest, a medium, and a lowest just price. That if prices were fixed by a superior power the just price would be "that price in which is included the estimation of the intrinsic good of the thing itself, of its abundance, of the expense and labor which is required to transport it from one place to another, also of the care and expense which must be employed to preserve it, and of the risk which the seller assumes in acquiring it and in transporting it." But since in the absence of a legal price the just and natural price could be known only by certain objective features of the transaction, Scaccia offered the following as criteria by which it could be recognized. "Just price is that price which is commonly sought in respect to any object by one who is not in want, and it is equal to what can be obtained from one not in want, who is intelligent and knows the condition of the object and has full age and sound mind."[3] That is to say, that whenever opposite parties, acting under conditions which insure equality of advantage, agree upon a price, it is in the nature of things a just price.

The Reformation, so far as economic thought is concerned, brought no immediate advancement. It was a revolt against the corruption of the Roman curia, not

[1] Tractatus de commerciis et cambiis, Rome, 1618; Cossa, 151.
[2] Endemann, Studien, vol. 1, p. 54.
[3] Quoted by Endemann, Studien, vol. 2, p. 40. See also Zuckerkandl, Zur Theorie des Preises, p. 68.

against the philosophical and ethical teaching of ecclesiastical writers. In economic opinion indeed, it was marked by a return to the doctrines of the earlier canonists. Luther thought that wealth was dangerous to the spiritual health, but that everyone should be rewarded according to his work or his service. He praised agriculture and handiwork and admitted the necessity of trade, but he thought it difficult for the trader to be without sin, and the most zealous ecclesiastical moralist of the 13th century scarcely rivalled him in invectives against usury.[1]

The religious wars of the 16th century called out Grotius' great work upon the relations of nations in war and peace,[2] in which he maintained that human conduct in war as well as in peace should be subject to the law of nature. In his chapter upon contracts he is led to consider value. He brings up the subject as a phenomenon of nature, so that we obtain his conception of it from direct statement, and not by inference from the discussion of a problem involving the idea of value, as in the case of Aquinas and the canonists. He considers need the most natural measure of value, "as Aristotle rightly shows," and probably the only measure among barbarians, but among civilized peoples the "will of men which is the master of things desires many things more than are necessary," hence desire is also a measure. But "as it comes to pass" that "the most necessary things are of small value for their abundance," it happens "that a thing is supposed to be of such value as is given or offered for it commonly," to which there is necessarily a certain latitude. Thus value which is the estimation in which a thing is held, varies according

[1] Wiskemann, p. 47 *et seq.*
[2] De jure belli et pacis.

to the common price. "For that common price," Grotius continues, "account is commonly taken of the labor and expense of the sellers, and it undergoes sudden changes according to the excess or defect of buyers, money and wares."[1] This statement though brief is significant. Grotius is not thinking of the just price, but of the current price which would be the natural result of a comparatively free competition of buyers and sellers, and he makes no attempt, as did Scaccia, to identify the one with the other.

Grotius was followed by Puffendorf[2] who devoted a chapter of his work, "Of the Law of Nature and of Nations," to a much more extensive analysis of value. He derives the law of nature from the social nature of man, and hence its most fundamental principle is the obligation to "promote and preserve a peaceful sociableness, whence all actions which necessarily conduce to this mutual sociableness, are commanded by the law of nature, and all those on the contrary are forbidden, which tend to its disturbance, or dissolution."[3] Armed with this criterion he seeks to discover what is in accordance with and what is against the law of nature in all departments of human conduct, including, of course, that in relation to property.[4]

As things that are subject to ownership must often be exchanged in order that they may be properly distributed among men, "it becomes necessary for men to agree upon some common measure, by which things of a different nature may be compared together, and made equal to one another." This common measure he con-

[1] De jure belli et pacis, book ii, ch. 12, § 14.

[2] Grotius published in 1623, Puffendorf in 1672.

[3] Of the law of nature and nations, book ii, ch. 3, p. 115, (Oxford, 1710).

[4] *Ibid.*, book v, ch. 1.

ceives to be the capacity of things for "having a value put upon them." "But since things receive a value, not only from their natural substance, but also in respect to some moral consideration, it follows that besides the natural, there must also be a moral quantity." "This," he says, "we call price, which is the moral quantity or value of things or actions, by which they are usually compared together in order to traffick." Thus Puffendorf uses the word value in a broader sense than price, while the latter has the usual meaning of value in economics. His conception is that value is attributed to things and actions by society irrespective of exchange. When things are brought together to be exchanged their values are compared. The fundamental cause of value he states as follows: "The foundation of the price or value of any action or thing is, fitness to procure either mediately or immediately, the necessaries, or conveniences, or pleasures of human life." The explanation which follows shows that his thought was chiefly fixed upon utility. He says "hence in common discourse we call those things that are useless, things of no value;—thus the cock in the fable set no value upon the jewel, because of no use to him."

In entering upon the discussion of what causes price to rise and fall, Puffendorf notes that the price of a thing does not always correspond to the "eminency" of its use. "Nay, we generally find the most necessary things are cheapest, because by the peculiar providence of God nature affords a greater increase of them." Accordingly, "that which chiefly raises the price is scarcity." The reason for this is because "the ambition of mortals esteems those things most which few men have in common with them; and, on the other side, thinks meanly of those which are seen in the hands of

everyone. But generally we set a great value upon nothing but what raises us in some measure above the rank and condition of others; and for this reason honours, particularly, are more valuable for being scarce." Puffendorf thinks all this proceeds, indeed, "from the corruption and pravity of human nature. For my goods are never the worse because others possess the like; nor better because others want them. He therefore that prides himself in seeing others want the good things that he is master of, seems indeed to take pleasure in other men's misfortunes." Furthermore, "it ought to be ranked among the senseless opinions of the common people, to value things either for their being new, or scarce, or hard to be gotten, or brought from far, unless their goodness also and their usefulness recommend them." In the case of things in daily use, especially "such as relate to provision, apparel and arms," they rise in price when they become necessary as well as scarce. "The prices of artificial things, besides the scarcity of them, are much raised by the neatness of the art; the reputation of the artificer adds credit to some, and others are more valuable for the character of their former possessor." "In short, the difficulty, the elegancy, the usefulness, necessity of the work, the scarcity of workmen, their being masters in the art, their not being under a necessity of working, all contribute to the raising of the price."

Thus far Puffendorf has been dealing with the general causes which, if left to themselves, always affect prices, and he has shown that these causes act indirectly by first affecting the dispositions and inclinations of men. In a state of nature, therefore, the price of anything would be whatever the contracting parties should agree upon. He next treats of the effect of advanced

civilization on prices. In a regular government prices are determined either by "an order from the magistrate, or some laws, or else by the common judgment and estimate of men, together with the consent of the parties." The former he calls "legal price", the latter "natural price"; the former is fixed "in a point" but the latter "admits of some latitude" "by reason of which it is generally divided into three degrees, the lowest or favourable, the middle or reasonable, the highest or rigorous; within which degrees a thing may be bought or sold dearer or cheaper." And "that may be said to be the just price, which is generally agreed upon by those who sufficiently understand the market and the commodities." "In regulating this natural price" he says, "regard is to be had to the labor and expense of the merchant in importing and taking care of his goods." Risk also should be paid for, and lastly the seller should be recompensed for selling at a time less favorable to him, or for loss on account of slow payment; "for a day is part of the price, which is more if paid down upon the nail, than if paid some time after." Regard must also be had for the circumstances of the market, for "what sudden and frequent alterations the market admits of by reason of the plenty or scarcity of buyers, money or commodities, is well known."[1] In this we recognize much that is already familiar in canonistic discussions.

Puffendorf evidently conceives value to be the esteem in which a good is commonly held by the community. The term rendered by his translator, "natural price" is, in the original, *pretium commune*, which clearly has this meaning. It is distinguished from the more general term, *pretium vulgare*, which is

[1] Of the law of nature and nations, book v, ch. 1, passin.

the esteem a man in the state of nature feels.[1] He also had a definite conception of value as actual capacity or power in exchange, but he applied it to money alone. In the first part of his discussion he distinguished between two kinds of prices; *pretium vulgare* and *pretium eminens*, by the first meaning the value of goods for human use, by the second, the value that is set upon money. His own words are: "Price may be divided into *proper* (*vulgare*) and *eminent*, the *first* is *placed* in things and sections, so far as they are capable of procuring either the necessaries, or conveniences, or pleasures of life: The *other* is placed in money, which is supposed to contain *virtually* the prices of all things else, and to be the common measure and standard of them."[2] This distinction must not be confounded with that between real and nominal price, for the term eminent price is applied only to money, and means the capaccity of money for exchanging for things, or in other words the exchange value of money. Because of a need of a medium of exchange, "most civilized nations by agreement thought fit to set a certain eminent price upon some particular thing, as a measure and standard for the price of every thing else; by the help of which one might procure any salable commodity, and commerce might be carried on more conveniently."[3]

Puffendorf condemns any arbitrary tampering with the value of money by magistrates, since the convenience of the public depends upon this being kept as nearly constant as possible. He sees in land the nearest possible approach to an unchangeable standard of value; it is capable of being compared with respect to quantity with other things; "for from it, mediately or immediately,

[1] Of the law of nature and nations, p. 368 n.

[2] *Ibid.*, book v, ch. 1, § 3, pp. 368–9.

[3] *Ibid.*, § 12.

proceeds most things that human life subsists upon. And the product of it being one year with another pretty equal, it may be presumed to have its natural value fixed and certain, to which the prices of other things, at least, of such as have not received their value from the luxury or folly of man, are referred to as to a standard." Since land is in private hands, the value of money "must needs rise, or fall according as it is scarce or plentiful, in proportion to land."[1] But Puffendorf also points out another cause for a change in the value of money with the change in its quantity, and this is the natural price of the metal of which it is made. "For since metal as to its natural price may be, and often is, brought into commerce as well as other commodities, its value must rise and fall according to the scarcity or plenty of it. And the eminent price of money must necessarily follow the natural price of the metals; for it is unreasonable that a quantity of silver, considered as a commodity, should bear a very different price from what it does when considered as money."[2] This opinion was an advanced one, for most people at that time thought that the value[3] of money was purely conventional, and bore no relation to the value of the metal, and that it became less or greater only as its quantity became greater or less in proportion to other things.

Puffendorf also shows advance, as did Grotius, in treating of value as a phenomenon of nature. His discussion of the foundation of value and of what causes it to rise and fall are, from the point of view in which they are presented, contributions to economic theory. But in regard to the determination of value in civilized

[1] Puffendorf, Of the law of nature and nations, book v, ch. 1, § 15.
[2] *Ibid.*, book v, ch. 1, § 16.
[3] The exchange value, not the "intrinsic" value. See *post.* p. 51.

society, the ethical and juridical conceptions of the middle ages still dominate his thought. His conception of exchange value and the application of it to money alone, is the special characteristic of the value theory of the period to which he belonged, a period preëminently of transition, during which the function of money as an intermediary in exchange was but vaguely conceived.

Turning now to the other class of writers upon economic subjects during this period, the empiricists, who were called into prominence by the growth of an economic system based upon exchange, and by a national economy, it will be necessary to examine more closely these changes in order to appreciate their influence upon thought.

As intercourse between peoples increases, industrial relations becomes complex. The economic system is more and more based on exchange. It has been said that "the long death struggle of the middle ages" began "with the close of the crusades."[1] They were indeed the beginning of a more active intercourse, not only between east and west, but among western peoples themselves, an intercourse which touched all sides of life. The struggle of princes for supremacy, and of church and papacy to maintain their authority, the rise of new communities, the development of commerce, and the general intellectual growth which make the history of the next three centuries, were all different phases and forms of increasing intercourse which received a second grand impulse from the discovery of America.

The most important as regards our present study were the accompanying changes in the modes by which wealth was produced and wants satisfied. The economic

[1] Erdmann, History of philosophy, vol. 1, p. 546.

system may be regarded as composed of two subordinate systems, that of production and that of regulation. The effect of increasing intercourse upon production was to make it capitalistic. There is probably no time in the history of human industry when labor is not aided by the use of tools or instruments of some sort, at least, no time after the primeval savage found that he could hit harder with a stone than with his naked hand. But capital in a historical sense and capitalistic production are products of an advanced civilization. They come gradually into prominence as the wealth of a people increases faster than its population, and as its tastes become more varied and refined, requiring more elaborate methods to produce what will satisfy them. The progress of capital and capitalistic production became rapid during the 16th and 17th centuries.

Probably no one thing did more to hasten it than the discovery of the silver mines of the new world. The influx of new money rapidly increasing the means by which wealth is transferred made it more available for use in productive enterprises.[1] The immediate effect of the great rise of prices was to put higher profits in the hands of those who would be most likely to use any surplus as capital. Not that the total wealth was necessarily increased but its distribution was altered in such a way that a more rapid formation of capital was inevitable.

During the period before us the regulative part of the economic system had been undergoing changes no less significant than those taking place in the productive part. As production theretofore had been prevailingly local, all that was needed being for the most part produced on the spot and for the particular con-

[1] Cunningham, English industry and commerce, vol. 2, p. 77.

sumer, so economic control had been the function of local organizations and had centered in small communities having a certain degree of political autonomy, such as the village community and the corporate town. Later, as some of these communities expanded into city republics or were included in territorial principalities, economic control was seen spread out over larger areas and concerned with a greater variety of interests; it was coming to be conterminous with the nation itself. The history of the middle ages is a history of the progress of nation states to a position of power and self-conscious unity; it was inevitable that when the proper time came economic interests should also be made to contribute to national greatness and superiority. This Schmoller has ably shown to be the real significance of mercantilism. "In its innermost kernel," he says, "it is nothing but state-making,—not state-making in a narrow sense, but state-making and national economy-making at the same time. The essence of the system lies not in some doctrine of money, or of the balance of trade; not in tariff barriers, protective duties, or navigation laws; but in something far greater:—namely, in the total transformation of society and its organization, as well as of the state and its institutions, in the replacing of a local and territorial economic policy by that of the national state."[1]

The expansion of the system of regulation to the territorial limits of the state was made possible by the expansion of productive methods, and in turn it aided powerfully to develop the economic system as a whole. With the substitution of national for local markets, industries on a large scale became possible. Intercommunication and exchange

[1] The mercantile system, pp. 50-51.

was facilitated not only by the removal of the petty restrictions by which local bodies had protected themselves from the interference and competition of the outside world, but also by the establishment of common currencies, common weights and measures, postal and banking systems. Interdependence and community of interests was established over a vast territory, including within itself a much greater variety of individual demands than was possible in a single local centre.

The great meaning of these economic changes is that the system of economy based upon exchange became established as we know it to-day. Although commerce and interlocal trade became of considerable importance long before the close of the middle ages, yet it is probable that a large portion of the people, especially in the lower ranks of life, even so late as the middle of the 15th century, still depended upon the direct personal services of their neighbors for the satisfaction of most of their everyday wants.[1] Buying could be done only on stated market days or at the local fairs which occurred only at wide intervals; the store and storekeeper so familiar to us hardly became a common feature in economic life until after the 15th century. The industry of the retail dealer and middleman, requiring that capital should be plentifnl and markets extensive, was especially the product of later centuries.

The increase of money and its comparative cheapness after the mines of Potosi began to be worked by the Spaniards, had of course an important influence in promoting exchange in every day life. This end was also

[1] See the account by Prof. Ashley of the development of a class of middlemen in the woollen industry, Economic history, § 44, vol. 2, p. 209 *et seq*.

furthered by the use of bills of exchange and banking facilities, which attained a high degree of perfection during this period. On account of the immense confusion growing out of the great variety of coins, money dealers had adopted a system of money of account which had for its unit an ideal coin of a specified weight in gold, with which they settled balances among themselves.[1] But the national policy which aimed to give to the people a currency which should be uniform throughout the nation, did more than anything else to facilitate exchanges in the humbler walks of life.

An extensive and complicated economic system based upon exchange would inevitably give rise to a conception of value as exchange power. It would seem that any person in possession of goods had only to offer them for sale to possess a certain number or quantity of any other goods that he might want, and the power of obtaining other goods which the possession of certain goods bestowed on him would be associated in his mind with the goods themselves as their exchange value. Money was the first good to acquire exchange value and it was a long time before the conception of mutual exchangeability was attached to other goods in the same degree. The mediaeval manner of regarding the exchanges of goods with money, and of money with money, as final transactions, continued to wield a subtle influence upon the judgment, and the full force of the meaning and place of money as a medium of exchange was scarcely comprehended until well into the 18th century.

The position of money as having purchasing power *par excellence*, as is well known, was the source of some of the most important features in mercantile policy.

[1] Handbuch des Handelsrechts, p. 312, article "Goldschmidt". Endemann, Studien, vol. 1, p. 182.

While wealth was not considered as has often been erroneously asserted, to consist only of money or the precious metals,[1] yet the quantity of the precious metals in circulation in a country was held to be the index of its wealth and its prosperity. "Gold and silver" said Locke, "though they serve for a few, yet they command all the conveniences of life, and therefore, in a plenty of them consists riches."[2] Hence, it was held that a country in order to grow richer should take care to prevent the exportation of its money or to draw in as much as possible from foreign countries. The former policy, which was at first the more important, afterwards partially gave way to the theory that if money were exported in commerce it would bring in more money provided a balance favorable to the nation exporting it were secured on each series of transactions. Thus said Thomas Mun: "The ordinary means therefore to increase our wealth and treasure is by foreign trade, wherein we must ever observe this rule; to sell more to strangers yearly than we consume of theirs in value. For in this case it cometh to pass in the stock of a kingdom, as in the estate of a private man."[3] As a private individual to grow rich must be careful to spend less each year than his income, so, it was held, a nation must buy less in value from other nations than it sells to them.

The service of mercantilism to economic theory is not so much in the doctrines it actually developed or that may be drawn from its practice, as in the industrial experiences it made possible. The experiences growing out of the commercial policy which are chiefly identified with mercantilism and which were of undoubted in-

[1] Ingram, History of political economy, p. 37.
[2] Considerations of the lowering of interest, Works vol. ii, p. 9.
[3] England's Treasure by forraign trade, pp. 7, 8.

fluence upon ideas, were still of less importance than those growing out of the extension of industrial peace and comparative freedom to larger areas and between greater numbers of interests; and out of larger conceptions of economic unity and social prosperity. It was the observation of the manifold industries of his native Kirkaldy, their mutual relations among themselves and the mutual relations of town and country that taught Adam Smith the elements of political economy.

Yet we must guard against picturing to ourselves any great advance in the direction of local freedom of trade under the mercantile system. The mediaeval notion that if in trading one party gained more than his legitimate wages he did so at the expense of the other, still held sway over ordinary minds and influenced the policy of legislators. On the other hand people were beginning to see that the guidance of self interest was necessary to enterprise and to the prosperity of the nation. Thus to guard the people against the merchants' greed for profit many old restrictions were retained, and to encourage the development of industry in those directions which seemed to make most for national prosperity, inducements were offered that had indirectly the effect of restrictions upon the less esteemed industries. In order that nations might have goods to export for the goods and money of foreign nations, manufactures were encouraged at the expense of agriculture, and manufactures for the foreign market at the expense of those for the home market.

Although the subject of value received on the whole scant treatment by the empirical writers of this period, and this is especially marked when we consider the vast number of monographs, essays and tracts that make up its economic literature, there was a conception of value that was tacitly accepted and often referred to in more

or less distinct terms in writings on such other subjects as money, coinage and trade.

In the common thought of the people this conception scarcely differed from that of the canonists, whose practical judgments they accepted. It was objective, *i.e.*, value was thought of as if it were a property of commodities. There were two kinds of value, intrinsic value, which corresponded to true value as conceived by the canonists; and value, without qualifying adjective, which meant price, the two terms being used interchangeably. This distinction appears in a statement of Montchretien de Vatteville, who said, in reply to a statement made in regard to the high prices which had followed the influx of gold and silver from America, "that the essential value of merchandise is unchangeable, not the accidental price, which depends on many things for more or less."[1] He maintained that there was no proportion between the prices of things and the quantity of money. The intrinsic value of money was understood to be equal to that of the metal it contained, and the debasement of the coinage was depreciated; but many of the same writers also held that the exchange value of money was determined by the government stamp, and went so far as to concede the propriety on the part of a prince of lowering the intrinsic value if he should be in unusual need.

It was upon the conception of exchange value or price as something within the control of arbitrary power, as well as upon the superior importance attached to money, that the doctrines of the mercantile school rested. But deeper reflection, a stronger mental grasp of the subject of money in all its relations, and of commerce, not unfrequently led to an analysis of exchange value as having

[1] Traicte de l'oeconomie politique, p. 257.

a natural cause, and to a construction in broad outlines of a value theory. In this work the Italian writers are especially important; they saw that value derives its existence not from the goods themselves but from their relation to human need. Thus Giovanni Peri, a merchant, and a contemporary of Scaccia, wished that the price paid for the subject of a purchase might be equal to the value of it, meaning by value not a physical quality of the thing but the esteem in which it is held because of its capacity to serve human needs.[1] Peri does not seem to have a conception of exchange value, since he distinguishes between the price of the thing and its value. But later we find this conception appearing with considerable definiteness, almost replacing the value-in-use of the middle ages, which, however, remains, in popular conception as intrinsic value. But the more acute thinkers were well aware that the conception of an unchangeable intrinsic value was false. They also disregarded cost as an element in determining the magnitude of exchange value, accounting for it rather by the relations of utility and need. The reason for this no doubt lies in the fact that they regarded their subject from the standpoint of exchange and not, as did the canonists from the standpoint of production, but the canonists had no conception of exchange value, they were concerned only with concrete prices.

One of the earliest Italian writers of importance was Bernardo Davanzati, who like Peri, was a merchant. His little book published in 1588, was entitled Lessons upon Money;[2] and his object in writing it was to show the harm that comes from debasing the coinage. In this book[3] he asserts that the price or exchange value

[1] Graziani, Teoria del valore, p. 28.
[2] Lezione della moneta. Scrittori classici, tomo ii, Milano, 1804.
[3] *Ibid.*, pp. 30–35.

of goods bears no proportional relation to their natural qualities. Money also he claims does not derive its purchasing power from the natural qualities of the metals of which it is composed, but from the agreement of people to employ them as instruments of exchange. He illustrates this principle as follows,—"An egg," he says, "the price of which may be half a grain of gold, sufficed to keep the count Ugolino alive in the Tower of Famine for eleven days, whilst all the gold of this world would not have been sufficient."[1] "What is of more importance to life than wheat? Yet ten thousand grains of wheat sell for a grain of gold. How happens it, then, that things by nature so valuable are worth so little gold? And according to what principle does it happen that one thing is worth so much more than another?"[2] This he explains substantially as follows: —that all the things in the world which men desire with which to satisfy their wants in order that they may be happy, are in the aggregate equal in value to all the money, *i. e.*, gold, silver and copper, which is in circulation, because men by common consent have agreed to exchange the metals and the commodities with each other. Thence it follows that the amount of money which any given thing is worth bears a proportion to the whole amount equal to the proportion which the happiness it is capable of procuring bears to the whole happiness of a people. Passing over the value of goods in money, this explanation evidently contains the idea that the values of goods relatively to one another depend upon the happiness they are capable of procuring, or, as we would say, upon their subjective utilities. Davanzati does not dwell upon this con-

[1] Lezione della moneta, p. 31.
[2] *Ibid.*, p. 32.

ception; it is quite evident that he was far from comprehending its importance.

He passes on to show that an exact mathematical expression of the relative values of goods is an impossibility; since to arrive at it would require the consideration of a variety of circumstances quite beyond the power of man to include in one calculation. But he shows that they are roughly expressed in the prices at which things are actually bought and sold, and therefore the merchant is the best judge of them. In the illustrations which follow, Davanzati brings forward two kinds of circumstances which affect values, the quantity of goods in relation to the need for them, and special desirable qualities. "A disgusting thing is a rat," he says, "but in the siege of Casalino one of them was sold for 200 florins on account of the great scarcity, and it was not dear because he who sold it died of hunger and he who bought it escaped." "Vases, painting, statues, pictures and other merchandise are bought at excessive prices by men of pride because they find so great a part of their beauty in the fact that they are worth so much gold. Similarly the men of Peru exchanged at first for pieces of gold a mirror, a needle and a bell, because these new and marvelous things made more display, and they found more happiness in them than in the gold which abounded."[1] Thus Davanzati in a rough way presents the conception that utility is a function of quantity and desirability. It is significant of the real importance of Davanzati's conception, that the utility upon which value depends in his theory is not objective but subjective, it is the capacity for producing happiness from the side of the nature of man and not from the side of

[1] Lezione della moneta, pp. 34, 35.

the natural qualities of the object, that he has in view. Thus the difference between his position and that of the Austrian economists is even less than would at first seem to be the case. Yet there is no comparison between the two, or rather they bear the relation to each other that a vague opinion bears to an extended scientific analysis.[1]

Geminiano Montanari, writing on money nearly a century after Davanzati,[2] gave a similar explanation of value, but it was worked out in much greater detail. His book[3] was probably written with much the same purpose, for he praises the invention of money which has made the whole world as one city, since any man who has money can buy anything he needs in any part of the globe. Money, he claims, measures the quantities of all things, even our desires and passions. It is a measure of desire because the amount that we spend for a thing corresponds to our appetite for it. But, he explains, money can only be regarded as the appropriate measure of things that are finite, it cannot measure the insatiable desires of the avaricious. As money measures desires so desires become the measure of money and of value. For the support of this last proposition Montanari appeals to the authority of Aristotle, who maintained that the universal measure of value is the wants of people which find a common representative in money.[4] Therefore the desires of men measure the values of things to which money ought to conform; from which it follows that desires or wants measure the value of money no less than of

[1] On Davanzati, see also Graziani, Teoria del valore, pp. 30, 31, and Zuckerkandl, Theorie des Preises, pp. 46, 47.

[2] About 1680.

[3] Della moneta. Scrittori classici, tomo iii, Milano, 1804.

[4] Ante p. 4.

things, and *vice versa*, money measures wants and desires no less than it measures the values of things.[1] Montinari evidently means that desires, money, and things, bear such a relation to each other that whatever decides the position of one determines that of the others. Whence he is led to support the proposition of Davanzati, that the mass of goods in exchange varies in value with the actual amount of money in circulation, so that if there were no change in the quantity of goods, a change in the amount of money would be followed by a change in prices.[2] This somewhat crude statement of a quantity theory of money, taking no accouut of rapidity of circulation, was no doubt suggested by the phenomenon of rising prices that followed the influx of American treasure.

Having established this theory to his satisfaction Montanari next takes up the question of the relative values of goods.[3] Given the quantity of money, what decides the values of particular commodities? The general answer is their scarcity or abundance. But how does the scarcity or abundance of commodities decide their value? Montanari thinks that the explanation is plain and notorious, yet nevertheless it will help the understanding to give it some attention. "I understand a thing to abound," he says, "not when as a matter of fact there is a great quantity of it absolutely, but when there is a great abundance of it in relation to the need, esteem and desire which men have for it."[4] In this sense scarcity renders any commodity precious and abundance renders it cheap. Thus "given the

[1] Della moneta, ch. 2, p. 40 *et seq.*
[2] *Ibid.*, 45.
[3] *Ibid.*, ch. 3.
[4] *Ibid.*, p. 59.

amount of money in circulation, to change the esteem that men have for things changes price, it becoming higher if desire increases, and lower if the goods fall into disfavor." [1] These quotations show that Montanari understood in a general way that exchange value is determined by personal valuations, but he makes no attempt to explain the details of the process. That a personal valuation is dependent upon the subjective utility is also implied in his explanation. He takes some pains to establish the proposition that wants must be interpreted as meaning not only the needs of men, but also their desires, and that therefore the same law controls the values of the necessities and the luxuries of life. He maintains that this was Aristotle's meaning.[2] However this may be, Montanari has here taken a position which is essential to a scientific explanation of value from want-satisfying-power or utility. That position was not reached in the middle ages because of the inability of mediæval thought to rise above the particular. Want then meant only lack of a necessity; lack of a luxury was another thing and quite different.

The dependence of esteem upon fashion and other external circumstances is set out at considerable length by Montanari. Of these the most influential are the desires of princes. "There is no power," he says "to change suddenly the prices of things in the world so great as the esteem in which princes hold them. Caracalla caused yellow amber to bear a great price throughout the Roman Empire by ordering it imported for his ornaments because it was the color of his mistress's hair. 'Whatever princes do seems to instruct.'" [3]

[1] Della moneta, p. 61.

[2] *Ibid.*, pp. 43–45.

[3] *Ibid.*, p. 61. See also on Montanari, Graziani, pp. 31–35 and uckerkandle, pp. 48, 49.

The doctrine that value is not an intrinsic quality of things but depends upon their relation to variable human wants was also set forth by an English pamphleteer, Nicholas Barbon,[1] in a tract entitled A Discourse of Trade, published in 1690. His position in regard to the nature of wants and utility was essentially the same as that of Montanari.

He considered the use of things which "are to supply the wants and necessities of man" to be the source of value. He classified "wares useful to supply wants" under the two general heads, of those "useful to supply the wants of the body," and those useful to supply the "wants of the mind." Of the former "which are useful to supply the three general necessities of man, food, clothes, and lodging," if "strictly examined" only food is absolutely necessary. "Wares that have their value from supplying the wants of the mind, are all such things that can satisfy desire; desire implies want: it is the appetite of the soul, and is as natural to the soul, as hunger to the body." "The wants of the mind are infinite, man naturally aspires, and as his mind is elevated, his senses grow more refined, and more capable of delight; his desires are enlarged, and his wants increase with his wishes, which is for everything that is rare, can gratify his senses, adorn his body, and promote the ease, pleasure, and pomp of life." "Things rare and difficult to be obtained" have value because they "are general badges of honour: from this use, pearls, diamonds, and precious stones have their value."

What Barbon has described in these few sentences is merely the esteem which is felt for the things by the individual or by the community. He next proceeds to show that there is a close relation

[1] See article on Barbon by Stephen Bauer in Palgrave's Dictionary.

between this esteem and exchange value or price. "The price of wares is the present value; and ariseth by computing the occasions or use for them, with the quantity to serve that occasion; for the value of things depending on the use of them, the *over-plus* of those wares, which are more than can be used, become worth nothing; so that plenty, in respect of the occasion, makes things cheap; and scarcity dear." As personal value is variable because of external circumstances and of the circumstances of the mind, so also is exchange value and for the same reasons. "There is no fixed price or value of anything, for the wares of trades, the animals, and vegetables of the earth, depend on the influence of heaven, which sometimes causes murrains, dearth, famine, and sometimes years of great plenty; therefore, the value of things must accordingly alter. Besides, the use of most things being to supply the wants of the mind, and not the necessities of the body; and those wants, most of them proceding from imagination, the mind changeth; the things grow out of use, and so lose their value."

As prices cannot be fixed, those asked by persons who have wares to dispose of, represent only a rough estimate of value. "There are two ways by which the value of things are a little guessed at; by the price of the merchant, and the price of the artificer: the price that the merchant sets upon his wares, is by reckoning prime cost, charges and interest. The price of the artificer, is by reckoning the cost of the materials, with the time of working them; the price of time is according to the value of the art, and the skill of the artist. . . . Interest is the rule that the merchant trades by; and time, the artificer, by which they cast up profit, and loss; . . . . but the market is the best judge

of value; for by the concourse of buyers and sellers, the quantity of wares, and the occasion for them are best known. Things are just worth so much, as they can be sold for, according to the old rule, *valet quantum vendi potest.*"[1] Barbon's idea evidently was that market value is determined by the competition of subjective valuations, and that it is the expression, more or less accurate, of the worth of things,—of the esteem in which they are held by society or by the individual.

Barbon had a much clearer idea than his contemporaries of the nature of rent and interest, he also showed the falsity of the prevailing theory of the balance of trade. But he made one great mistake, he contended that the value of coins depended upon the stamp affixed to them by the government. It has been suggested that this error may have been the cause of the oblivion into which his writings fell in spite of their great merits.[2] But his ideas were in advance of the times while others more in accord with the current tendencies of thought were set forth by no less a person than John Locke, who was destined to have a permanent influence upon economics as well as upon other departments of knowledge. Locke's conception of value belongs in quite a different line of development from that represented by Barbon and by Davanzati and Montanari. What he presented was a careful analysis, or theoretical explanation, of the conception of value in the common thought of the people. He was in advance of it, however, in that he showed that exchange value is not accidental but is the natural result of existing conditions. Though there is much to be desired in his analysis, we

[1] Discourse of trade, quoted by Cunningham, English industry and commerce, vol. ii, p. 229. See also article upon Barbon by Steven Bauer, in Palgrave's Dictionary.

[2] McCulloch, Literature of political economy, p. 157.

find in it the conception of value as power in exchange fully developed. Locke approached the subject of value from two points of view, that of the philosopher dealing with first principles, and that of the pamphleteer or empiricist. It is from the latter position in his "Considerations upon the lowering of interest and raising the value of money" that he had most to say on exchange value. Therefore we shall confine ourselves at present to this position, leaving the former to be considered later.

Locke regarded natural law as the way things go on in the absence of restrictive rules, such as men who have agreed to enter into association with one another make for the good of themselves.[1] The tendency of his thought was to regard nature's way as the best; he believed that it would be for the advantage of society to allow such economic phenomena as the rate of interest to determine themselves according to natural law. Since the "natural" rate is that which men agree upon among themselves according to the dictates of their private interests, it is therefore that which will encourage the most profitable use of money. In showing how the natural rate is determined, Locke was led to review the causes of value.

Intrinsic or natural value, he explains, depends upon utility, while marketable value is a relation in exchange. Thus "the intrinsick natural worth of anything, consists in its fitness to supply the necessities, or serve the conveniences of human life; and the more necessary it is to our being, or the more it contributes to our well being, the greater is its worth." But "the marketable value of any assigned quantities of two, or more commodities, are *pro hic et nunc* equal, when

[1] Civ. Gov't. Works (1726), vol. ii, p. 160, *et seq.*

they will exchange one for another." Nor do these two kinds of value rest in any proportion to each other, that is, "there is no such intrinsick natural settled value in any thing, as to make any assigned quantity of it, constantly worth any assigned quantity of another." He does not mean to imply, however, that intrinsic value has no connection whatever with marketable value, on the contrary it is essential to the existence of the latter, since the "vent of anything," that is, its sale, is shown to depend upon its necessity or usefulness.[1]

Marketable value or exchange value is merely a proportion in which two things which are exchanged stand to one another. "The change of the marketable value of any commodity, . . . is not the altering of any intrinsick value or quality in the commodity; (for musty and smutty corn will sell dearer at one time than the clean and sweet at another) but the alteration of some proportion, which that commodity bears to something else."[2]

Locke's statement of that upon which the amount of marketable value depends is rather obscure. He says: "He, that will justly estimate the value of any thing, must consider its quantity in proportion to its vent, for this alone regulates the price."[3] Vent, he explains, "is nothing else, but the passing of commodities from one owner to another in exchange."[4] The vent is regulated by the rapidity with which commodities are bought up and removed "out of the way and course of trade."[5] This is shown to be due ultimately to the consumption. Thus while Locke by vent evidently re-

[1] Considerations, etc., Works, vol. ii, p. 21.
[2] *Ibid.*, p. 22.
[3] *Ibid.*, p. 20.
[4] *Ibid.*, p. 22.
[5] *Idem.*

fers to the demand side in the determination of value, he did not reach an accurate conception of demand, and as also he did not even attempt to develop the supply side his explanation leaves much to be desired. It was not, however, with the value of commodities that he was especially concerned in this essay but with the value of money.

It is not a fault of the mercantile theory that it represented money as important on account of the power to own other forms of wealth, present and future, bestowed by it upon its possessor; but that it stopped there, thus giving the impression that this power dwelt in the money itself, and not in the fact that other forms of wealth existed and were being reproduced as fast as wanted. That this was not really the opinion of mercantilists is proved by the theory not uncommon among them that money obtained its value solely from the agreement of society to use it as a medium of exchange, and that its value would therefore depend upon the proportion between the quantity of money on the one hand and other forms of wealth on the other. This was the opinion, as we have seen, of such men as Davanzati and Montanari, and stands in contrast to that other opinion, also prevalent, that the value of money was whatever the government decreed it should be, by the stamp it put upon its coins. This latter view was held by Barbon who maintained, in answer to Locke, that apart from law, the value of money was like the value of the metals, which varied in different times and places, as the values of other things. Locke on the other hand held the value of money to be a matter of convention. Money serves, he explains, in two ways, the one for reckoning by its stamp and denomination; the other for exchanging

valuable things, " by its intrinsick value, which is its quantity." Mankind, he asserts, have put an " imaginary value" upon the precious metals, because by reason of their fitness for this purpose, they " have made them, by general consent, the common pledges, whereby men are assured, in exchange for them, to receive equally valuable things, to those they parted with, for any quantity of these metals. By which means it comes to pass, that the intrinsick value, regarded in these metals, made the common barter, is nothing but the quantity, which men give or receive of them."[1] Locke feels that there must be a difference between the " intrinsick" value of money and of other things because they serve by being sooner or later used up, that is consumed; while money serves only by being passed from hand to hand as pledges for other goods and is not used up.[2] He fails to see that there is no essential difference between the two utilities, and that, therefore, the value which is attributed on account of utility in the latter case, is no more imaginary than that in the former. By saying that the "intrinsick" value of money is nothing but its quantity, he implies that money really has no intrinsick value but only exchange value. This is as it were " a double value," *i. e.*, it is a value which may be derived from either of two sources. The first is the power of money of affording an income to its owner, and in this he compares money to land, the value of which " consists in this, that by its constant production of salable commodities, it brings in a certain yearly income;" the second is the power of money of procuring for its owner by exchange the necessaries and conveniences of life. In the latter aspect, money is like

[1] Considerations, etc., Works vol. ii, p. 12.
[2] *Ibid.*, p. 17.

any other commodity except that it serves only by exchange and can have only exchange value, the amount of which, like that of other commodities, is determined by its quantity in proportion to its vent."[1] The value of all commodities including money in circulation consists, according to Locke, in a proportion, whence it follows that an alteration in the quantity of the money produces a change of value, but the change of value is in the money, not in the commodities, therefore, trade remaining the same, the quantity of money in circulation regulates its value. The serviceableness of money in trade, its power "to drive the trade" of a country is the source of its value. This value will increase if the profit to the borrower increase, which will happen if the quantity of money decrease in proportion to trade, or to the vent of all commodities, taken together. Accordingly Locke maintains that when the quantity of money increases, interest, which is the income afforded by money, diminishes, because the exchange value of the money being less, the borrower cannot make so large a profit with a given amount of money as formerly.[2] Such reasoning by so astute a philosopher and so careful an observer shows that in the economic opinion of the 17th century the way money performs its functions was still far from being understood.

Locke confused money with capital. In this respect, as indeed in most points of the theory of value he was behind Barbon, who declared it to be a mistake to consider interest a payment for money, that in reality it is a payment for stock. It is "the rent of stock" he said, "and is the same as the rent of land. The first is the

[1] Considerations, etc., Works, vol. ii, p. 17.
[2] *Ibid.*, p. 23.

rent of wrought or artificial stock; the latter of unwrought or natural stock."[1]

The confusion between money and capital was carried to its highest point shortly after Locke's time by John Law, who thought that credit also had the same functions, and conceived that by increasing credit money, he really increased the capital of the country. He defended his position in the following manner: "Internal commerce depends on money; a greater quantity employs more individuals than a smaller quantity. A limited sum can put to work only a proportionate number of individuals; and it is with little success that laws are made to employ the poor and idle in a country where money is scarce. Good laws can carry money to the highest degree of circulation of which it is susceptible, and compel it to employ those who are more profitable to the country; but no law can go farther, and a larger number of individuals can not be made to work without a greater quantity of money put in circulation to pay the wages of this large number. It is possible to lead them to work by credit, but not unless credit has a sufficient circulation to furnish the needs of the laborers; on this hypothesis, credit is money, and produces the same effects as money upon commerce both internal and external."[2] Upon such principles as these Law founded his celebrated banking system.

As to the cause of value, Law's statement was founded chiefly on Locke, but he substituted the term demand for "vent". He says: "Things draw great value from the uses to which they are applied; and their value is greater or less, not so much by reason of their uses,

[1] Quoted by Bauer in Palgrave's Dictionary.

[2] Considérations sur le numéraire et le commerce. Daire, Economistes Francais du XVIII Siécle, p. 427.

more or less esteemed, more or less necessary, as by reason of their greater or less quantity, compared to the demand which is made for them." He illustrates this point by the classic example of water and diamonds. Law does not attach any precise idea to demand, but merely indicates in a general way, that he means by it the quantity desired. He criticised Locke's idea that the value of money is imaginary. This value, he holds, is no more imaginary than any other value derived from other uses, all uses give value by affecting the demand in relation to the supply.[1]

We have now seen that during the sixteenth and seventeenth centuries value was treated of by two classes of persons, moral philosophers and empiricists; by the former as a part of a general system of ecclesiastical or ethical jurisprudence, by the latter as a part of the argument by which some detail of public policy was advocated. The idea of a "true value" was displaced during this period by that of a "natural value", *i. e.*, that value which would exist under conditions of free and equal competition. This was the special work of the philosophers. In the writings of the empiricists the modern conception of value-in-exchange began to take form; it was purchasing power, and goods were seen to have value not absolutely, but in relation to each other. An absolute value, however, still persisted under the name of intrinsic value.

Thinkers during this period directed their attention almost exclusively to phenomena connected with buying and selling, it was through commerce that nations expected to increase their prosperity, hence value was explained almost entirely from conditions of exchange; but before the close of the period the disposition to look

[1] Considérations, etc., p. 427.

at economic phenomena as a whole began to be manifest, and one of the symptoms of it was a tendency to explain value from the standpoint of production as well as from that of exchange. The resulting theories, although some of them appeared sometime before the close of the seventeenth century, logically belong in the next chapter, which deals with the eighteenth century to the year 1776.

CHAPTER III.

VALUE AND ECONOMIC SCIENCE BEFORE 1776.

It has been maintained that political economy came into existence at a certain stage in the development of French and Scotch moral philosophy.[1] We have seen that the ethical jurists, as Grotius and Puffendorf, had treated of value, price, money and interest in connection with justice in contracts, thus giving to the deductions connected with these economic phenomena an organic place in a general system of jurisprudence. Early in the eighteenth century we find Hutcheson, who used Puffendorf as a text book, dividing the lectures upon moral philosophy which he delivered at the University of Glasgow, into four parts. One of these he devoted to jurisprudence, included economics.[2] Adam Smith, who as a student heard the lectures of Hutcheson,[3] followed his master's divisions when he himself became a lecturer on moral philosophy; but in time what he had to say upon economics swelled to such proportions and appeared to him so important, that he gave it to the world in a separate treatise.[4] In the meantime certain French philosophers had developed a system of economics with which Adam Smith had come in contact before he completed his great work, and which represents the first phase of economic science. The advance toward economic science would not have been possible without the work of the empirical writers of the seventeenth century. They brought together the materials

[1] Cohn, History of political economy, p. 14.
[2] Hutcheson, A system of moral philosophy, bk. ii, ch. 12.
[3] Hutcheson lectured from 1730 to 1746.
[4] Cannan, Lectures of Adam Smith, p. xxvi.

of economic history which, with their reflections upon them, could be worked over, and general principles thus deduced, which could be coördinated into a systematic body of knowledge.

In this general process such work as that of Sir William Petty, who is often called the father of statistics, was of great importance. It led to more careful analysis and to the employment of more systematic methods of investigation. But Petty's object was practical rather than theoretical, and his great service was to show what knowledge can be gained from the careful collection and collation of facts. His method, as he himself explained, was to express himself "in terms of *number*, *weight* or *measure;* to use only arguments of sense, and to consider only such causes, as have visible foundations in nature; leaving those that depend upon the mutable minds, opinions, appetites, and passions of particular men to the consideration of others."[1] He therefore devoted himself to such subjects as are now commonly the object of statistical enquiry. In his writings we find conceptions which were to play a fundamental part in the "new economics" of the eighteenth century. For this reason we consider his views upon value in this chapter, where they seem logically to belong, rather than in the last, before those of Barbon, where a chronological order would place them.

In Petty's view, land is the original source of all things constituting wealth, but labor is required to draw them forth from the soil, and additional labor to render them suitable to the uses of man. Hence he says, or rather quotes, "Labor is the father and active principle

[1] **Preface to first essay on political arithmetic, (1676), ; ed. Hull, vol. 1, p. 244. See also Bevan, Sir William Petty, p. 89, Publications of the American Economic Association, vol. ix, No. 4.**

of wealth, as lands are the mother ".[1] But he does not place the emphasis upon the office of land that it afterwards receives at the hands of the Physiocrats; his emphasis is rather upon labor, which can overcome natural disadvantages. But he is so far a mercantilist that he exalts the seaman and trader above the husbandman, because "the following of such trade, which does store the country with gold, silver, jewels, etc., is profitable before others."[2]

Petty's conception of value includes value in exchange or price, and natural value. He speaks of value in exchange sometimes as extrinsic or accidental value[3] in distinction from intrinsic value, which apparently is the same as natural value. Again he distinguishes between the intrinsic and extrinsic causes of "dearness and cheapness."[4] The former are the inner qualities or virtues of the thing, as the "weight, extent, color and clearness" of diamonds.[5] The latter are what produce fluctuations in supply and demand. He has some notion of what in modern times has been called normal value. He considers that a rough estimate of the extrinsic value of land might be made by taking the average of all bargains made within a definite period of time.[6] Petty recognizes that need affects price; "as great need of money heightens exchange, so doth great need of corn raise the price of that likewise."[7] He also appreciates the influence of taste. He says "opinion of unexampled effects do adde and take away

[1] Taxes and contributions, ch. x; Petty's Economic writings, ed. Hull, vol. 1, p. 68.

[2] Political arithmetic, (1676), *Ibid.*, p. 260.

[3] Taxes and contributions, ch. 5; *Ibid.*, p. 50.

[4] Dialogue of diamonds; *Ibid.*, vol. 2, p. 625.

[5] *Ibid.*, p. 625.

[6] Taxes and contributions, ch. 5; *Ibid.*, vol. 1, p, 49.

[7] *Ibid.*, p. 48.

from the price of things."[1] Also, "lands intrinsically alike near populous places, . . . will not only yield more rent, . . . but also more years purchase than in remote places, by reason of the pleasure and honor extraordinary of having lands there."[2]

Petty conceives the natural value of land and labor to be derived from the value of what they produce. Thus the natural rent of land is the value of its surplus produce.[3] The natural value of commodities is the quantity of land and labor which enter into their production. He deems it a "most important consideration in political economies, viz. how to make a *par* and *equation* between lands and labor, so as to express the value of anything by either alone."[4] This he does in the following manner: "Suppose two acres of pasture-land inclosed, and put thereinto a weaned calf, which I suppose in twelve months will become 1 C. heavier in eatable flesh; then 1 C. weight of such flesh, which I suppose fifty days food, and the interest of the value of the calf, is the value or years rent of the land. But if a man's labor for a year can make the said land to yield more than sixty days food of the same, or of any other kind, then that overplus of days food is the wages of the man; both being expressed by the number of days food."[5] The day's food Petty regards as a common measure of value, he reduces it to a unit in the following manner—"That some men will eat more than others is not material, since by a day's food we understand $\frac{1}{100}$ part of what 100 of all sorts and sizes will eat, so as to live, labor and generate. And that a day's

[1] Taxes and contributions, ch. xiv, Petty's Economic writings, ed. Hull, vol. 1, p. 90.
[2] *Ibid.*, vol. 1, p. 49.
[3] *Ibid.*, vol. 1, p. 43.
[4] The political anatomy of Ireland, *Ibid.*, vol. 1, p. 181.
[5] *Idem.*

food of one sort, may require more labor to produce, than another sort, is also not material, since we understand the easiest gotten food of the respective countries of the world."[1] A day's food of better quality he regards, as equal to several units, "for one day's delicate and exquisite food may be worth ten of ordinary."[2] Ordinarily however value is not expressed in a day's food but in money, and the quantity of silver which represents the unit, a day's food, is as much as can be produced by the same amount of labor as produced the day's food. If this quantity changes then the value of commodities in money is altered. Thus, "if a man can bring to London an ounce of silver out of the earth in Peru, in the same time that he can produce a bushel of corn, then one is the natural price of the other; now if by reason of new and more easy mines a man can get two ounces of silver as easily as formerly he did one, then corn will be as cheap at ten shillings the bushel, as it was before at five shillings *caeteris paribus*."[3]

To sum up Petty's theory of value, we may say that he conceived the ultimate source of value, as of wealth, to be land and labor. By value he meant wealth measured. Hence the natural value of a commodity would be the result of the quantity of land and labor required to produce it. But its value in the market, its extrinsic value, might vary from the natural value according to the relation of supply to demand.

The English writer who did most at this period to fix in the minds of his countrymen and others, the notion of labor as a measure of value was John Locke, whose work in developing the conception of exchange value we have reviewed. His interpretation of value

[1] The political anatomy of Ireland, Petty's Economic writings, ed. Hull, vol, 1, p. 181. [2] *Ibid.*, p. 183.

[3] Taxes and contributions ch. 5; *Ibid.*, p. 50.

as derived from labor is needed to complete our view of his theory as a whole. It was not given in the last chapter because there we were dealing not only with the conception of exchange value in itself, but with the notions that naturally grew up in connection with it in an age when thought, in seeking causes for the amount of that exchange value, went little behind the circumstances of the market. In that age the office of labor or cost was neglected, and its resurrection toward the end of the seventeenth century marks the beginning of a new period in the evolution of the theory of value. As is often the case with original thinkers, Locke not only gave the best expression to the thought of the period that was ending, but played an important part in determining the direction of thought in that which was beginning.

In considering Locke's thoughts on value we must remember that they were brought in incidentally, as means to the elucidation of other subjects, so that much of what he might have said had he been constructing a theory of value is left to be supplied by the context and the intelligence of the reader. Locke asserts that although both land and labor unite in the production of wealth, "labour makes the greatest part of the value of the things we enjoy in this world." "Bread, wine and cloth," he says, "are things of daily use, and great plenty; yet notwithstanding, acorns, water, and leaves, or skins, must be our bread, drink and clothing, did not labor furnish us with these more useful commodities; for whatever bread is more worth than acorns, wine than water, and cloth or silk than leaves, skins or moss, that is wholly owing to labour and industry." But it is not merely the labor that made the commodity which must be considered but also the labor that pro-

duced tools. "The labour of those who broke the oxen," he says, "who digged and wrought the iron and stones, who felled and framed the timber employed about the plough, mill, oven, or any other utensils, which are a vast number, requisite to this corn, from its being seed to be sown to its being made bread, must all be charged on the account of labour." "It would be a strange catalogue of things," he continues, "that industry provided and made use of about every loaf of bread, before it came to our use, if we could trace them: iron, wood, leather, bark, timber, stove, bricks, coal, lime, cloth, dying drugs, pitch, tar, masts, ropes, and all the material made use of in the ship, that brought any of the commodities made use of by any of the workmen, to any part of the work;" he wisely adds, "all of which it would be almost impossible, at least too long, to reckon up." And in contrast to this, "The ground which produces the materials," he says, "is scarce to be reckoned in." He regards it as a constant element, so that "it is labour indeed that puts the difference of value on everything."[1]

Locke does not mean what he elsewhere calls "intrinsic" value when he speaks of labor putting value on things, but rather a kind of exchange value. He says: "An acre of land, that bears here twenty bushels of wheat, and another in America, which with the same husbandry, would do the like, are, without doubt, of the same natural intrinsic value: but yet the benefit mankind receives from the one in a year, is worth 5 *l.* and from the other possibly not worth a penny, if all the profit an Indian received from it were to be valued, and sold here; at least, I may truly say, not one

[1] Essay on civil government (London, 1772) pp. 208, 209, 210.

thousandth."[1] In the essay upon the rate of interest we have seen that he defined intrinsic value, or "the intrinsic natural worth of any thing," as consisting in its fitness to supply the necessities or serve the conveniences of human life;"[2] this conception is similar to that of Adam Smith when he defines value, in one sense, as the utility of some particular object[3] Also in the same essay we have seen that Locke considered the "marketable value" of a commodity to be determined by the proportion of its quantity to its vent, but he says nothing of the conception of value as determined by labor. From this it would seem that when he presented this conception in his essay on government, he was not thinking of the relative quantities in which commodities exchange for each other in actual transactions—the problem he had before him in the work on interest—but of the rule according to which they must in the long run exchange for each other. In other words he had in mind what English economists afterwards defined as natural or normal value.

If we compare the concept of value of Locke and Petty with that of Barbon, we perceive the main difference to be that the first is objective and value is thought of primarily as the attribute of a thing, while the other is subjective and value is thought of as emanating from a mind. This difference represents two methods which, thus even before political economy became a science, began to characterize the researches of thinkers. One method is mechanical, and value is made to appear as the result of a combination of external conditions; the other is psychological, and the

[1] *Ibid.*, p. 209.
[2] Works, vol. 2, p. 28.
[3] The wealth of nations, bk. i, ch. 5.

source of value is the mind, external conditions affecting it only as they affect the mind.[1] The germs of both methods, as we have seen, existed in the middle ages and are indicated by the the tendency of some writers to look to market conditions and of others to to look to utility for the source of value.

In spite of the liberal thought of Petty, Locke, Barbon and many others it was not in England but in France that the infant economic science was cradled.[2] Both the character of philosophical thought and the economic conditions of the century were more particularly favorable to the appearance in that country of thinkers who would devote themselves especially to the construction of an economic science. Mercantilism, which had for its aim the development of national prosperity by means of a favorable balance of trade, had necessarily resulted in an energetic governmental regulation of commerce and industry, which was carried out in France under the additional stimulus of the need of revenue produced by the ambitious policy of Louis XIV. After the time of Colbert, the management of the finances fell into the hands of less capable ministers, and the mercantile policy was less consistently followed; but the taxation which remained was of the kind to stifle that enterprise and thrift which, under other conditions, motives of self interest would have insured. As a result the agricultural population was impoverished, public finances were in a most unsound condition, the manufactures, which Colbert had built up, began to fall into ruin, and commerce ceased to be carried on with its former energy.

Boisguillebert, a magistrate of Normandy, contended

[1] Compare Zuckerkandl, Theorie des Preises, pp. 29, 34.

[2] Jevons, Richard Cantillon, *Contemp. R.* 39 : 80.

against Colbertism, especially against the overestimate of the precious metals. He showed that the falling off of the wealth of the kingdom was due to the failure of agriculture, as a result of burdensome and badly adjusted taxation.[1] Marshal Vauban, holding many of the same ideas, recommended a reform in taxation by which a tenth of the agricultural produce should be paid into the public treasury and also a tenth of the incomes derived from trade and manufactures.[2] Other financial reforms were proposed and some of them adopted, but all to no purpose; they were either inadequate or, like that of Law, only added to the general confusion. Industrial life continued to be in a state of depression, although here and there were signs of recovery; but gross poverty remained everywhere in striking contrast with the extravagant affluence of the privileged classes. In the meantime, across the channel, English gentlemen were trying experiments upon their estates and adopting new methods of agriculture which were followed by most satisfactory results. Reports of these improvements created quite a sensation in France and were adopted by many landed proprietors, among them the royal physician, François Quesnay.

In order that writers on political and economic subjects should begin consciously to construct a science, it was necessary that they should believe that the acts of men are governed by general principles, that natural law applies in human as well as in physical relations. This point was reached in philosophical thought by Hume, whose essays were translated into French in 1754. He believed in the science of human nature as

[1] Le Detail de la France, Daire, Économistes financiers du xviii[e] Siècle, p. 171.
[2] Dime Royale, Daire, *Op. cit.*, p. 31.

an experimental science, and that general principles must be admitted in judging of human affairs. "General principles" he said, "if just and sound, must always prevail in the general course of things, though they may fail in particular cases; and it is the chief business of philosophers to regard the general course of things."[1] Also in another place, "What depends upon a few persons is, in a great measure, to be ascribed to chance, or secret and unknown causes: what arises from a great number, may often be accounted for by determinate and known causes."[2]

The physiocrats, or economists as they called themselves, believed that the social order, like the physical order, was presided over by natural laws. It followed, therefore that if man by his reason could find out these laws and would obey them, happiness would be assured. To Quesnay and his followers the principle of self interest seemed a sufficient surety for this obedience. The task that these philosophers set themselves, therefore, was to discuss, explain, and propagate the knowledge of laws appertaining to life in society. The physiocrats did not consider natural laws as relations of cause to effect; what they had in mind was a definite order of things necessary to the greatest happiness or well-being of society. Quesnay explains that natural laws are both physical and moral, the physical laws are "the regular course of all the physical events of that natural order which is plainly the most advantageous to mankind," the moral laws are "the rules of all human action of the moral order which conforms to the physical order that is obviously the most advantageous to mankind."[3] Together these are the natural laws upon

[1] Essays, Literary, moral and political, London, 1870, p. 150.
[2] *Ibid.*, p. 63. See also Bonar, *Op. cit.*, p. 105.
[3] Le Droit Natural, Oeuvres de Quesnay, ed. Onken, p. 375.

which positive laws should be founded in order to form the most perfect government.[1] This conception is more closely related to that held by Grotius and Puffendorf than to the modern scientific conception of natural law; it was conducive to the building up of a science of economics not only because it introduced general principles into the realm of human action, which was not altogether new, but because it connected human well-being with external nature. The physiocrats believed that they were developing a science of human nature or a general social science. But the principles and phenomena of this science as presented by them were mainly economic, that is, social science with them was in its fundamental principles economics. Thus instead of creating sociology they created political economy.

The fundamental economic postulate of the physiocrats was that the cultivation of the soil is the sole source of new wealth, and alone gives a net income. Thus they differed from Locke and Petty, who derived wealth not only through the agency of agricultural labor but also through that of industrial labor. This doctrine was put forth as early as 1732 by Richard Cantillon in an essay upon commerce to which Quesnay acknowledged indebtedness.[2] Cantillon was of French extraction though born in Ireland and was for several years a merchant and banker in London. Both he and the physiocrats after him regarded money as wealth only in the sense in which other commodities are wealth, *i.e.*, by being useful to man; but its use was only as a medium of exchange, it created no new wealth. Hence there could be no advantage in the so-

[1] For an excellent account of the ideas of the physiocrats on these points, see Schelle, Du Pont de Nemours, p. 48, *et seq.*

[2] Grains, Oeuvres, ed. Onken, p. 218.

called favorable balance of trade. The physiocrats, developing their doctrine further, maintained that manufacture and trade were sterile industries, in that they created no new wealth, but merely changed its form and carried from one place to another that already created. Accordingly they divided society into three classes: the productive class consisting of the cultivators; the proprietary class consisting of the owners of the soil; and the sterile class consisting of all others, including public servants. The first class obtained all new wealth at first hand, out of which it retained only enough to repay it for its services and to replace its capital, and paid the balance or net income to the proprietary class. The sterile class obtained through exchange its share of the new wealth, which amounted merely to payment for its services from the other two. This theory of distribution was based upon two cardinal principles, private ownership of land, and freedom of exchange, the realization of which the physiocrats insisted was necessary for a just distribution of wealth and for the well-being and happiness of society. Therefore they advocated the removal of all restrictions upon industry and especially upon commerce, and urged that the revenue for the government be raised by a single tax upon the net income derived from land. Such in outline were the fundamental principles of the first school of political economy. We have now to see what was its theory of value, and how this theory was related to the doctrines of the school as a whole. We shall begin with Cantillon who has been regarded as a forerunner of the physiocrats.[1]

[1] On Cantillon see Jevons, *Contemp. R.*, vol. 39, p. 61; Bauer in *Quart. Journ. of Economics*, vol. 5, p. 100; Higgs, Physiocrats, p. 17, *et seq.*

Cantillon[1] points out that some land is more productive than other land, that garments made of the same quantity and quality of yarn but with different amounts of labor command different prices; whence he concludes that "the quantity of the product of the earth, and the quantity as well as the quality of labor, enter necessarily into the price." He then develops this proposition by further examples. A pound of fine lace may be made at Brussels by the labor of four persons for one year or of one person for four years. "One sees that the price which is given for this lace is sufficient to pay for the subsistence of one person for four years, and to pay in addition the profits of all the undertakers who deal in it." In the case of a watch-spring of fine steel the quality of the labor makes almost the entire value of the spring. But on the other hand the price of hay and wood is regulated according to the quantity of the product, that is, according to the fertility of the land which produced it. "The price of a cup of water of the river Seine is nothing, because there is an immense supply that never dries up; but one gives a sol for it in the streets of Paris, that is the price or the measure of the labor of carriage." He then sums up as follows: "By these inductions and examples, I think it will be understood that the price, or the intrinsic value of a thing, is the measure of the quantity of land and of the labor which enters into its production, regard being had to the fertility or quantity of product of the land, and to the quality of the labor." From this it is evident that Cantillon regarded value as fundamentally a relation in which things stand to what is required to produce them, and that he considered that any one estimating the real value of things would estimate it according to what they

[1] Essai sur le commerce, ch. 10.

had cost. He uses the term price to express this cost, he also uses it to express what is given for the thing in the market, what it costs the buyer. The two prices do not necessarily correspond, but they will do so, he thinks, under normal conditions, the latter tending to gravitate to the former.

Thus he continues: things do not always exchange in the market at their intrinsic value. The fancies and tastes of men may be a cause of this. Thus when a gentleman, who at great expense makes a fine garden for his own enjoyment, finally offers it for sale, he will not get half he laid out upon it, unless many long for it; in that case he may get double. The state of consumption also may cause a variation between intrinsic and market value. Thus when farmers raise more corn than is needed, the price "at the market will necessarily fall below the price or intrinsic value." "There is never a variation in the intrinsic value of things; but the impossibility of proportioning in a state the production of merchandise and food to their consumption, causes a daily variation, a perpetual flow and reflow in the market price. Nevertheless in a well-regulated society, the market price of food and merchandise of which the consumption is sufficiently constant and uniform, does not differ much from the intrinsic value; and when it does in years of unusual dearth or superabundance, the magistrates of the town are always in a position to fix the market price of many things, such as bread and meat, so no one need complain."[1]

Carrying his analysis of cost value still farther, he endeavors to find a fundamental cause and measure of the value of labor. "The earth is the material," he says, "labor the form of all food and merchandise; and

[1] Essai, pp. 38, 39.

as those who work necessarily need to subsist on the products of the earth, it seems that one might be able to find a relation between the value of labor and that of the products of the earth."[1] Accordingly by a discussion of the needs and habits of different kinds and ranks of workers, and of the needs for bringing up children, he shows that the value of each man's labor corresponds to the quantity of the products of the earth that he requires for his subsistence and for that of his children, or more exactly for double his own subsistence; and the value of each woman's labor corresponds to her own subsistence. A subsistence, although seen to vary according to the kind of labor, as, for example, farm labor or artisan, and according to the customs of different countries, is still to Cantillon a pretty definite measure, so that in a given country it is possible to form an equation between land and labor, and to state the real or intrinsic value of anything in terms of land only.[2] Accordingly he says in the introduction to his chapter on trade: "we have tried to prove in the preceding part that the real value of all things of use to man is their proportion to the quantity of land employed for their production, and for the subsistence of those who have given them form."[3]

Cantillon does not agree with Locke that the market price of things in money depends on the proportion between their quantity and the quantity of money in circulation, because it is always possible to alter the

[1] Essai, p. 39.

[2] *Ibid.*, ch. 11. Cantillon remarks upon the importance which Petty attached to such an equation, but criticises the latter's investigation "as odd and remote from the laws of nature because it is not concerned with causes and principles but only with effects; as Locke and d'Avenant and all the English authors who have written something on this matter have done after him." Pp. 54, 55.

[3] Essai, p. 151.

quantity of things by transporting those that are superabundant. But he thinks Locke's idea just in the sense that the market price is fixed by the proportion of the supply to the demand, *i. e.*, as he seems to mean, the quantity of things and the quantity of money representing the supply and the demand respectively. "In general," he repeats, "market prices do not vary very much from the intrinsic value."[1]

The leader of the physiocrats, Quesnay, did not bestow upon the analysis of value the special attention which he devoted to other topics; he does not seem at first to have appreciated, as Cantillon certainly did, the place and importance of such an analysis in the construction of economic science. Yet underlying and running through the more purely economic parts of his system, such as the explanation of the sources of wealth, of the primitive and annual advances necessary to insure the greatest possible annual increase of wealth, of the classes of society and the distribution of this annual increase to the members of these classes, there is an implied theory of value which is unmistakable and of such consequence that its content has been held to constitute one of the "truly great scientific achievements" of the physiocratic school.[2] Fundamentally it is like that of Cantillon; but Quesnay makes an important distinction which Cantillon did not make, though it had been made by Locke, namely, the familiar distinction between value in use and value in exchange, (*valeur usuelle*, and *valeur venale*). "The savages of Louisiana," he says "enjoyed a quantity of goods, such as water, wood, game, fruits of the earth, etc., which were not wealth because they had no exchange value. But since some

[1] Essai, p. 157.
[2] Cohn, History of political economy, p. 27.

branches of commerce have been established among them . . . . . . a part of these goods have acquired an exchange value and have become wealth."[1] Thus it is exchange value that turns the products of the soil into wealth, and therefore it is with exchange value alone that the physiocrats consider political economy to be concerned. Le Trosne, one of the apostles of the school, gives the following explanation and definition. "In society then products acquire a new quality, which comes from the intercourse of men: this quality is value, which makes the products wealth . . . . Value consists in the ratio of exchange which is found between such things and such other things, between such measure of one product, and such measure of others."[2] By saying that value makes products wealth, the physiocrats did not mean that what determines value therefore produces wealth, for nothing could produce wealth that did not bring forth new matter or substance. Value was merely the means of measuring wealth, or the thermometer of the wealth and property of the country.[3] Thus, as between two nations, the state whose goods have the higher exchange value is the richer.[4]

As to what determines the amount of value, Quesnay does not make the distinction drawn by Cantillon between intrinsic and market value, but he discusses value, (*valeur venale*) both from the point of view of exchange, and from that of production. From the former, Quesnay considers that valüe though brought to light in the market is not at all determined by the personal circumstances of buyers and sellers. "Prices," he says, "are not subject to the interests of either buyers or

[1] Notes sur les maximes, Oeuvres, p. 353.
[2] De l'interest sociale, Daire, Physiocrates, p. 889.
[3] *Ibid.*, p. 901.
[4] Quesnay, Questions intéressantes, Oeuvres, p. 299.

sellers; these interests themselves are in reciprocal opposition in the sale and in the purchase; thus the seller and the buyer considered separately, are not at all the arbiters of the prices of products. . . . No one is ignorant that in regard to products, the general cause of their current price is their scarcity or their abundance, or the competition more or less great of sellers or of buyers; and that by these causes the actual price of products precedes their sale, even that at first hand." Thus though ascertained by exchange, value and price are a resultant of general causes existing before the newly produced wealth is brought into the market. These general causes lie, in Quesnay's opinion, in the relation that the consumption of a community bears to its production. If the former is relatively great, values and prices will be high. High values, Quesnay maintains, are a great benefit to the people, because by showing that the products of the soil are extensively desired they encourage greater reproduction. Thus he declares in one of his maxims: "Abundance and cheapness is not wealth. Dearth and dearness is poverty. Abundance and dearness is opulence."[1] The latter condition would indicate a large consumption as well as a large production.

Regarding value from the side of production Quesnay sees as its cause the labor cost which is measured in the subsistence of the workmen. "If you compare the gain of the workmen who make the works of industry," he says, "with that of the workmen employed in the culture of the soil, you will find that the gain on both sides is limited to the subsistence of the workmen; that this gain is not an increase of wealth; and that the value of the works of industry is in proportion to

[1] Oeuvres, p. 335.

the very value of the subsistence that the workmen and merchants consume. Thus the artisan destroys as much subsistence as he produces by his labor."[1] Upon the same reasoning the gain of the merchant or trader is but a reimbursement for his necessary subsistence, therefore in an exchange there is only an exchange of equal value for equal value and no increase of wealth.[2] The measure of the wealth annually renewed by a nation, is the value of the sale of the produce of the soil at first hand.[3]

Le Trosne, who attempts to elaborate the thought of his master, draws a distinction between value at first hand and subsequent value. The first is the value that the produce of the soil has in the hands of the actual cultivators. The second is that which is added to the produce by subsequent labor. It is by the first alone that the increase of wealth is measured. The difference between the two is determined by the labor, measured by the subsistence that has been expended in changing the form of original wealth or in transporting wealth from one place to another.[4] He names as causes of value: first, utility, which he shows is essential in order that a thing may have value, but he takes pains to point out that utility is not a measure of value; second, the indispensable costs because if expenses are not made good there would be no motive to continue production, and reproduction would not be assured; third, the state of supply, whether the thing be scarce or abundant; fourth, the competition of consumers and products offered for sale. This he considers the sovereign force which decides the value. The amount of

[1] Graines, Oeuvres, p. 233.
[2] Oeuvres, p. 386.
[3] Analyse du tableau economique, Oeuvres, p. 307.
[4] De l'interest sociale, Daire, p. 903.

consumption, he points out, depends not only upon the numbers of the people, but upon the state of comfort that they enjoy. Since this is chiefly determined by the amount of the annual production, the production itself is therefore in Le Trosne's mind the ultimate cause of value. It decides how much the people are able to pay for what they buy.[1]

In brief the position of Quesnay and his followers seems to be that the exchange value of raw material when it passes from the hand of the cultivators of the soil who produce it, or "at first hand," is determined by the relation of its consumption to its production, that the exchange value of finished goods includes in addition, the value of what the worker has consumed in living while changing the form of the raw material. As the consumption in both cases is regarded as representing the cost of the production, cost is the ultimate cause and measure of value.

To the orthodox physiocrat, value was cost made manifest in a rate of exchange predetermined by the condition of things, *i. e.*, by the actual production compared with the necessary consumption. Hence the statement that in exchange equal value is given for equal value, as often reiterated by them, was a mere truism, for if the cost determined the rate of exchange, things would exchange in proportion to costs. The doctrine was not a new one, as we have seen. The canonists believed that whenever prices were just, equal value was exchanged for equal value. The common mercantilist opinion that if one party gains in an exchange the other loses, considered in connection with the distinction between real or intrinsic value and market value, involved the same conception. For if goods were exchanged at

[1] De l'interest sociale, p. 890, *et seq.*

their intrinsic or cost values, neither party would gain or lose, since values would be equal. But market value which was greater or less than intrinsic value, permitted one side to gain, while the other lost, an amount equal to the difference. The orthodox physiocrats disregarded temporary variations in value. They kept in view only normal exchange value determined by cost. Therefore they announced this proposition as a general principle and drew from it the conclusion that foreign commerce although of some benefit to a nation, was not of great importance. Far from increasing the wealth of a country, it was merely an expense.[1] They advocated freedom of exchange, but they desired the development of internal rather than foreign commerce.

The theory of value held by Quesnay and his followers was the logical companion of their imperfect conception of wealth. They saw that all things which are used by man come originally from the earth, that is, are "gifts of nature." They also recognized that the only motive for industry of any kind is the necessity of procuring things capable of satisfying the wants of man. But they did not put these two facts together, or understand their relation to each other. When Le Trosne said that value is the quality that makes products wealth,[2] he doubtless meant that the degree to which products are wealth is indicated by their value; but he offered no adequate explanation of this truth. Those "gifts of nature" which have value are wealth, because value is the social expression of that usefulness which furnishes the motive for industry. This fact physiocrats like Quesnay and Le Trosne never really comprehended. They recognized value in use, but con-

[1] Quesnay, Oeuvres, p. 286.
[2] *Ante*, p. 86.

sidered it of no importance in economics; they also acknowledged utility to be a necessary condition of value, but saw no connection between utility and the amount of value. They therefore failed to see that the amount of wealth is dependent upon the amount of utility that is embodied in material things, and that labor other than the cultivation of the soil, by creating new utility must produce wealth.

The best exposition of physiocratic theory was made by Turgot, who, not liking its dogmatic tendencies, refused to identify himself with the school. Nevertheless his thought was essentially the same upon all points which the physiocrats considered fundamental. His treatment of value, however, differs from theirs, not so much in its final outcome, as because he has developed it psychologically while the method of Cantillon and the school of Quesnay is mechanical. They explain value by causes which are conceived as working of themselves apart from any effect on the mind and feelings of people. Turgot, on the other hand, sees in value the effect of external conditions acting through human feelings. Indeed, throughout his systematic treatment of political economy he does not lose sight of the psychological element, yet he is unable to break away entirely from the materialism of the physiocrats. Turgot, however, was not alone in his time in developing a theory of value upon psychological grounds. He acknowledged indebtedness to Galiani, Abbot of Naples, whose work[1] upon money should be regarded as belonging in line with the works of Davanzati and Montanari, though occupying a position much in advance.

Galiani had placed himself in opposition to the

[1] Della Moneta, Scrittori classici Italiani di economia politica, parte moderna, tomo, iii and iv. The work was first published in 1750.

physiocrats in a controversy upon the commerce in grain claiming that they were too absolute in their conclusions as to freedom of trade. His object in writing the book referred to, was to show that money gets its value not from the convention of society, but just as any other commodity gets its value. This led him to explain the cause of value in general. He derives it from the desire for satisfaction inherent in the heart of man. He says, "One can, I believe, say that esteem or value is an idea of proportion between the possession of one thing and the possession of another in the conception of a man."[1] This proportion is an equality between two things, so that a man careful not to have his enjoyments frustrated, exchanges one for another and there is neither loss nor gain. Thus value according to Galiani depends not only upon the feeling we may have about a thing, but also upon a comparison between this feeling and the feeling we may have for something that must be given for it. He fails to see, however, that in this case it is inconsistent to say that in an exchange there is neither loss nor gain, for both parties must gain. Yet the conception of the dependence of value on human feeling is very plain in his thought. He shows that since human dispositions vary, the values of things vary. On the one hand, there are the things generally sought which have what one may call current value. Other things draw their value from the individual desire of those who covet them and of those who give them up. Value, he maintains, is a composite conception and can be analyzed by a calculus of utility and scarcity. Air and water have no value because they have no scarcity. A bag of sand from the beaches of Japan would be rare,

[1] Della Moneta, libro i, page 58.

but would be of no value because it would have no utility.

He takes up first the calculus of utility. Many doubt that there can be great utility in some merchandise of great price; therefore it is necessary to explain utility at length, and the way it is measured. "I call utility," he says, "the aptitude that a thing has for procuring us happiness." Having noted that we have other wants and passions besides those of eating, drinking and sleeping, which arise when these are satisfied, he draws up a classification of goods according to utility as follows: "In the series of useful things the first are the elements; then comes man, who, of all things is the most useful to another man; then the things which serve for nourishment, then those which serve for clothing, then there follows those which serve for habitation, and in the last place those which serve as the less important commodities and for the satisfaction of the secondary desires of man." The statements, "a natural calf is more noble than a golden calf, but how much less prized," "a pound of bread is more useful than a pound of gold," Galiani calls "shameful paralogisms," that are due "to ignoring the fact that more or less useful are relative terms and that their import corresponds to the different states of persons." Further on he speaks of the influence of fashion upon value and upon our ideas, "it has the effect of causing the utility of things to vary by causing the enjoyment caused by their use to vary." The value of things unique like the Venus de Medicis, or products of monopolies, is not infinite or indefinite, but corresponds to the needs and desires of the purchaser and the estimation of the seller. Thus Galiani recognized the personal or subjective nature of utility and saw that the value of some things

is but the result of a comparison between subjective utilities.

Taking up scarcity Galiani defines it as the proportion existing between the quantity of a thing and the use made of it. Use is not destruction only but such occupation of a thing, that while one person uses it, it cannot satisfy another. Both destruction and the withdrawal of things from commerce can raise the price of those that are left, but the former more than the latter. He next makes a distinction familiar in modern economics, that between goods which can and goods which cannot be reproduced at will. There are two classes of things as to quantity: the first is those whose quantity depends upon nature, as fruits of the earth and animals, the second those which depend upon labor. In analyzing the second class in regard to quantity, one needs to consider only labor, because the quantity is proportional to the labor. In analyzing labor there are three elements to be considered: the number of people employed, the time spent, the different quality of the work. There are some things, as a bale of cloth, whose value is equal to the nourishment of the number of persons employed during the time necessary to finish the work. In an analysis of the time spent, it is necessary to consider the time spent in rest, and also in holidays. If a man work three hundred days in the year and produce one hundred pairs of boots the value of these boots will correspond to his nourishment for one year. If another work three hundred and sixty days and produce one hundred and twenty pairs of boots he can sell them one fifth cheaper than the first, "for he will have no need of drawing from one hundred and twenty pairs of boots a gain superior to that which the first drew from his one hundred pair." Some labors,

by their nature, cannot be practiced continually, as in the fine arts. Arts, also which require long apprenticeship and impose great expense on parents, are paid more dearly. So pine or walnut is dearer than poplar or elm because of the slowness with which it grows. The value of the various talents of man, Galiani thinks, is governed by the same principles that govern the price of inanimate things. Divine Providence has made the most necessary talents, such as agriculture, the commonest. Peasants are as the bread and wine of men, philosophers as the precious stones.

After this interesting and acute analysis of utility and scarcity Galiani concludes in the following manner. "I have now said enough of the principles upon which value depends; one knows now that these principles are certain, constant, universal and founded upon order and the nature of the things of this world, nothing is arbitrary and fortuitous here below, but all is order, harmony and necessity. Values are various but not capricious. Their variations even are subject to an order, to an exact and unchangeable rule. They are ideas: but when they are founded upon needs and enjoyments, that is to say upon the internal constitution of man, our ideas are essentially just and stable." But he warns his reader against thinking that value is easily determined, as might seem after what has been said. Value cannot be determined *a priori*, for scarcity and value depend upon consumption, and consumption varies according to value. The problem contains two unknowns and hence is indeterminate. Price influences consumption. Each consumer desires things according to the inconvenience and labor that their acquisition costs. If the inconvenience be great he prefers to use things having less value. Consumption is governed by

price which is itself governed by scarcity; in years of bad harvest the price is higher and the consumption less, *i. e.*, a people spend only a fixed amount for corn, which in some years buys more, in others less, according to the harvest. As prices are lowered desires grow. Hence an equilibrium is preserved. Prices tend to seek a level.

Galiani did not think it necessary to distinguish between value in use and value in exchange. What he had in mind, however, was exchange value. The amount of value, he shows, depends upon a combination of utility and scarcity, meaning by the latter supply in relation to demand, but while the precise value cannot be known *a priori*, because each of the two is a variable, the result is not fortuitous but according to law. In this he has given a qualitative rather than a quantitative analysis of the law of value.[1]

Turgot treated of value in two works, in his "Reflections on the formation and the distribution of riches," which was written about 1766, and in an unfinished essay entitled "Value and money,"[2] which according to Daire, was apparently intended for the Dictionary of Commerce projected by the Abbé Morellet.[3] It was written about the same time as the Reflections, and is the more elaborate treatment of the two. In this essay he begins with the etymology of the word *valeur*. It is the substantive of *valoir* which is from the Latin *valere* signifying force, vigor, also to be well. This meaning is retained in the words valid, invalid and con-

[1] Della Moneta, libro i, cap. ii. On Galiani see A. Dubois, Les théories psychologiques de la valeur on xviii[e] siècle, in *Revue d'économie politique*, Sept. and Oct., 1897. The last number contains a translation into French of that part of Galiani's work relating to value. See also Graziani, p. 99.

[2] Valeur et monnaies, Oeuvres, vol. i, p. 75–93.

[3] Daire, Notice historique sur Turgot, Oeuvres, vol. i, p. 45.

valescence. The words *valoir* and *valeur* have in common usage a sense different from that which they have in commerce, but which is nevertheless the basis of the latter. "It (*valoir*) expresses that goodness relative to our needs by which goods and gifts of nature are regarded as adapted to our enjoyment, to the satisfaction of our desires. One says that a stew is worth nothing when it is bad to the taste. . . . . . The adjectives bad, mediocre, good, excellent, characterize the different degrees of this kind of value. . . . . . Although this goodness may be always relative to us, we have nevertheless in view, in explaining the word value, a real quality, intrinsic to the object and by which it is suited to our usage." This last statement has been characterized as an "unfortunate phrase in which the author confounds the conditions with the cause of value," and stigmatized as being "in formal contradiction with his theory and with the definition which he assumes." [1] What Turgot probably meant, however, was that value is something concrete, not an abstract relation, such as is implied by the expression, ratio in exchange; it is a definite amount of excellence or importance attributed to the object valued; but in his desire to make clear the concreteness of his idea he confused value with utility.

Turgot begins his analysis with the simplest case imaginable, that of the isolated man. This individual seeks an object which he judges adapted to his enjoyment, "he will find it good, and this relative goodness can be absolutely termed value." "But this value, not being compared with other values, will not be susceptible of measurement, and the thing which has worth will not be rated" (*evaluée*). Measurement of value or

[1] Dubois, *Rev. d'econ. pol.*, vol. xi, p. 859.

valuation comes with the comparison of objects with respect to the enjoyment they can give. At first the isolated man compares only present enjoyments and thus values things only in relation to present enjoyment; but in the course of time future enjoyments enter into his calculations, and value is estimated also in things which, although incapable of contributing to enjoyment at present, will, if held in possession, do so at a future time. "Then the man begins to compare his wants, to proportion the quest of objects not only to the quick impulse of present wants, but to the order of necessity and utility of different wants." To the general capacity of a thing for satisfying a present want Turgot apparently assigns the term excellence, while he assigns the term utility to the power of a thing to satisfy a future want. But the order of excellence, he explains, enters into or modifies the order of utility, "for the pleasure of the more lively enjoyment which this degree of excellence produces is itself an advantage which man compares with the greater urgency of the things of which he prefers an abundance to the excellence of a single one." The necessity of providing for future wants and the sentiment of present need are two considerations upon which the isolated man bases his estimation of value. A third consideration is "the greater or less difficulty which man faces in procuring the object of his desire, for it is very evident that, between two things equally useful and equally excellent, that which requires more trouble to acquire appears to him much more precious, and he will employ more care and effort to procure this thing for himself." "This is the reason why water in spite of its usefulness is not regarded as precious in the country where it abounds, ... but in the desert it has an infinite

price." Thus even before we come to exchange we find scarcity an element in valuation. Turgot here uses scarcity as another name for difficulty of attainment, and makes a somewhat equivocal attempt to reduce the conception to that of utility. "It is necessary to remark," he says, "that this esteem attached to scarcity is again founded on a particular kind of utility, because it is more useful to provide one's self in advance with a thing difficult to obtain than with one more choice, and man makes more effort to appropriate the former." These three considerations, namely, the sense of present need, the necessity of providing for future wants, and the difficulty of attainment, or excellence, utility and scarcity, "are all," says Turgot, "which enter into the determination of the kind of value that is relative to isolated man." "To designate it," he continues, "by a suitable name we shall call it estimative value (*valeur estimative*), because it is in effect the expression of the degree of esteem which man attaches to the different objects of his desire."

Thus far Turgot's analysis has been qualitative. He has shown that value arises out of the desires of man which are proportional to one another, occupying different places in a scale of values. He now wishes to discover what determines the amount of each particular value, or the measure of value, in the case of the isolated man. This measure he finds to be "labor, the employment of his faculties and time," which man must pay in a primary commerce with nature to obtain the objects of his desire. Difficulty of attainment as one of the causes of estimative value has thus far figured as one incentive of desire, "that which he will have more trouble to obtain appears to him more precious, etc."; now this necessary trouble appears as the measure

or denominator of value, the price paid for the object in a primary commerce with nature. The valuation which he has put upon the object because of its importance to his well-being, what is it but "the account which he renders to himself of that portion of his labor and his time, or to express these two things in a single word, of that portion of his faculties which he employs in the quest of the object valued, without sacrificing to it the quest of other objects equally or more important?" The unit of the scale of comparison of values is then the sum total of a man's faculties, and each valuation is a fraction of this unit. "It is precisely the portion of the total of his faculties which responds to the desire which he has for the object, or which he is able to employ to satisfy the desire. . . . One may say, in other terms, that it is the ratio of that proportional part to the total of the faculties of man, a ratio which would be expressed by a fraction which would have for numerator one of the numbers representing the values or the equal proportional parts that make up the total of the faculties of the man." If these numbers were 1, 2, 3, 4, 5, etc., up to 100, then the valuation of a particular object of desire would be expressed by .01, .02 or .03, etc., according to the proportional part of his faculties necessary to obtain that object. This ingenious explanation was inspired by a statement of Galiani which had impressed Turgot and which he epitomized by the phrase, "the common measure of all value is man." Galiani said: "The price of things, that is to say the proportion existing between things and our wants, has not yet a fixed measure. Perhaps one may be found. For my part, I believe that there is no other but man himself."[1] What Turgot really means is that

[1] Dubois, *Rev. d'econ. pol.*, vol. xi, p. 852.

the personal valuation or, to use his own term, the estimative value is determined by that personal sacrifice which the nature of the case requires. No isolated man will be apt to attach a greater importance to the object of his desire than what corresponds to the effort he must make to obtain it. This is a cost theory of value. But the merit of Turgot's explanation is that it shows that cost affects value, by first limiting desire.

Turgot now comes to exchange value. For this part of his exposition he supposes two men cast upon a desert isle in the midst of the northern sea. One has a superabundance of fish, the other a superabundance of skins. They will demand each of the other his surplus in order that the one need not be cold or the other go hungry. Each will give the other what he demands, and thus commerce will be born. What has happened in this case is that the surplus portions of the two commodities, otherwise useless, have acquired a value in the eyes of their possessors which they did not have before; each has placed a value upon that of which he had no personal need. It is probable that in this first situation the debate upon the conditions of exchange will not be very lively; all the surplus fish will be given for all the surplus skins. "But let us change the supposition a little, let us give to these two men an interest in guarding their surplus, a motive for attaching value to it; let us suppose that instead of fish one has brought corn, which can be preserved a long time, and that the other instead of skins has brought fire-wood, and that the isle produces neither grain nor wood." Unfavorable conditions, such as a stormy season, make it impossible for either to return to the continent for more supplies. The man with corn needs wood to keep from freezing, the possessor of wood desires corn that he may not

starve. There is great need of exchange, but each one will calculate the force of his needs to determine his interest in keeping that which he has and in acquiring that which he has not. "In a word, he will fix precisely the estimative value of each interest in relation to himself. This estimative value is proportional to the interest that he has in procuring for himself the two things; and the comparison of the two values is evidently only the comparison of the two interests." Each is also animated by the general interest of keeping as much as he can of his thing and of acquiring as much as he can of the other's thing. Each holds in secret his own estimative value and sounds the possessor of the thing he wants by small offers and large demands. "They dispute upon the conditions of exchange, and as both have a great interest in agreeing, they will agree at last." They exchange, let us say, four measures of corn for five armfuls of wood. Each one without doubt places a higher estimative value upon that which he receives than upon that which he gives. This "is essential to the exchange, for it is the sole motive of it. Each one would remain as he was if he did not find an interest, a personal profit, in exchanging." This view of exchange is in agreement with the general physiocratic doctrine that exchange is for the advantage of all who take part, but Turgot was apparently the first to explain it as a gain in value. And even to him it is a gain in estimative value only. This gain is precisely equal on each side he maintains, "for if it were not equal one of the two would desire the exchange less than the other and would force him to come down in his price by making a larger offer. It is then always exactly true that each one gives equal value for equal value."

"Let us see precisely what this exchangeable value

is," Turgot continues. It is not precisely estimative value, for in the determination of estimative value each man separately compared two interests. "In the determination of the exchangeable value there were two men comparing and four interests compared, but the two interests of each of the two participants have first been compared by them apart, and these are two resultants which are afterwards compared together, or further debated by the two participants, in order to form a mean estimative value which grows into precisely the exchangeable value in question, to which we may give the name appreciative value, (*valeur appreciative*), because it determines the price or the condition of exchange." Appreciative value is of the same nature as estimative value, but differs from it in that it is a mean estimative value. "We have proved that the estimative value of an object for isolated man is no other than the ratio between the portion of his faculties which a man can devote to the quest of this object, and the total of his faculties; then the appreciative value in exchange between two men is the ratio between the sum of the portions of their faculties which they will be disposed to devote to the quest of each of the objects of exchange and the sum of the faculties of the two men." By reducing both estimative value and appreciative value to terms of energy, Turgot has shown how exchange value is but an outgrowth of individual valuations.

Appreciative value, he next points out, is not a ratio between two things exchanged, "or between the price and the thing sold, as some persons have been inclined to think," but it is the value of each of the things compared, which two values are equal. "One must not confuse," he says, "the values which have relation of

equality, with this relation of equality which supposes two values compared." Turgot wishes to guard his reader against confusing the thing itself with the mathematical expression of the thing. Appreciative value is a definite attribute of the thing valued, but it may be expressed as a ratio in exchange.

Value cannot be announced by itself, the fraction of energy or human faculty to which a particular value is equal, cannot itself be expressed. The numerator is "a thing inappreciable." Besides in a calculation of these faculties it would be necessary to consider time. Here it is difficult to fix upon a suitable unit or to estimate time in its relation to its many different kinds of employment. Thus while it is impossible to express value in terms of itself, it can be and is announced by price, that is by stating the quantity of what is given for that which is bought, or by saying that a certain quantity of one thing is equal to a certain quantity of another thing in value. Turgot here takes considerable pains to show that that in which the price is expressed is not itself a real measure of value. Although the use of the two words value and price interchangeably is, to be sure, sufficiently exact for the language of commerce, since in every exchange each quantity of the things exchanged serves reciprocally as the price and to express the value of the other, nevertheless those two words express essentially different ideas. The number of aliquot parts of one thing that is given for another thing in exchange no more measures the value of that thing than the ell of France measures the vare of Spain, although the latter may be expressed in terms of the former. Simple as this truth is, Turgot remarks, it has often been misunderstood by very good minds and administrations have been led into error, as

in the case of the famous system of Law. Thus he would have us understand that although values may be expressed or denominated in terms of paper money, the denominations are not measurements of them, they can only be measured by the human energies necessary to produce them.

Having thus far explained the fundamental conceptions of value on the simple hypotheses of an isolated man and two exchangers, Turgot next proceeds to complicate his conditions. He supposes four men instead of two, but only two things, corn and wood. If these four men are divided into pairs which are separated from each other there will be two different appreciative values, but this will not prevent each man getting an equal value for equal value given in each case. If the four men come together and learn these rates of exchange, the conditions of exchange will at once be altered, there will be a new appreciation of the value of wood and of the value of corn, which will be the same in the two exchanges and for the four participants. The same quantity of wood will be given for the same quantity of corn in each exchange, for "if one possessor of corn would take less wood than the other for the same quantity of corn, the two possessors of wood would address themselves to him for the profit of this reduction." He would then raise his demand for wood, while the other possessor of corn would lower his. This would continue until the two possessors of corn would offer the same quantity for the same quantity of wood.

At this point the fragment, Value and money, ends. In the Reflections, which Turgot himself characterized as "a sketchy sort of analysis of the labours of

society and of the distribution of riches,"[1] he does not attempt a lengthy description of estimative and appreciative value, nor does he use these terms. But after a short explanation of the "principle of the valuation of commercial things," he proceeds to show how "the current value establishes itself in the exchange of commodities." The process is the competition of demanders on both sides, and finally "it is fixed by the balance of the wants and abilities of the whole body of the sellers of corn with those of the whole body of the sellers of wine. . . . . The price midway between the different offers and the different demands will become the current price, whereto the buyers and sellers will conform in their exchanges."[2]

In comparison with Galiani, Turgot's treatment of value fails in that he has not given so complete and satisfactory an analysis of utility; but while Galiani regards the labor element as affecting value chiefly through its effect upon the element scarcity, Turgot has given it a fundamental position, making it the ultimate measure and determiner not only of exchange value but also of personal or private value. It is notable that he has made no distinction between subjective and objective as applied to value. Both exchange or appreciative value and estimative value are of the same kind, and both are subjective. Turgot is vastly superior to the physiocrats in psychological analysis, but the outcome is not essentially different. In a letter to Hume, he says: "And you justly observe that it is not taxes, high or low, which determine the price of wages, but simply the relation of supply and demand.

[1] Letter to Du Pont, Dec. 9, 1766, Turgot, Econ. classics, 110.

[2] Reflections on the formation and distribution of wealth, Turgot, Econ. classics, §§ xxxi, xxxii.

This principle has certainly never been disputed; it is the only principle which fixes at the time the price of all the things which have a value in commerce. But one must distinguish two prices, the current price, which is established by the relation of supply to demand, and the fundamental price, which, in the case of a commodity, is what the thing costs the workman. In the case of the workman's wages, the fundamental price is what his subsistence costs the workman." [1]

The physiocrats carried on a very active propaganda, the economic reforms which they advocated were presented in every light, the theories upon which they were based were elaborated, and the views of their opponents controverted in numerous articles which appeared upon the pages of their journals [2], or in more extended treatises. The Abbé de Condillac cannot be ranked as an opponent of the school, yet he exhibited some fundamental differences which are of especial importance in a history of the theory of value. These appear in a little work upon commerce which he published in 1776.[3] He agreed with the economists in their main thesis that the soil is the original source of wealth. But he maintained that wealth, in as much as it consists in things that have value, is increased by whatever increases value, that therefore commerce and the arts are capable of increasing wealth.[4] The basis of this doctrine is the theory of value with which he begins his treatise. In his view the foundation of value is utility. Utility is founded upon the need we have for

[1] Econ. classics, p. 107.

[2] See Quesnay, Oeuvres, p. 378, *et seq.*; see also Higgs, The physiocrats, lecture vi.

[3] Le commerce et le gouvernment considéré relativement l'un à l'autre.

[4] *Ibid.*, chs. 6 and 7.

a thing. "According to this utility we esteem it more or less fit for the uses in which we wish to employ it. Now this esteem is what we call value. To say that a thing has worth, is to say that it is good, or that we esteem it good, for some use." He significantly points out that it is not the utility itself but our knowledge of the utility of a particular thing that causes it to have value. "One is inclined," he says, to "regard value as an absolute quality, which is inherent in things, independent of the judgment we entertain of them, and this confused notion is a source of bad reasoning. It is necessary then to remember that, although the things have a value because they have the qualities which make them suited to our needs, they will have no value for us, if we do not judge that they have in fact these qualities. Their value is then principally in the judgment that we entertain of their utility."

Not only the utility, but the state of the supply of the things that we need, is a cause of the degree of esteem which we have for them. This is because "In abundance, one feels the need less, because one does not fear a shortage. For an opposite reason one feels it more in scarcity and in dearth." A need more strongly felt, gives to a thing a greater value, a need less strongly felt, a less value. "The value of things increases then in scarcity, and diminishes in abundance." Also a need a long way off will give a thing less value than a present need. Thus "the more or less of value, utility remaining the same, is founded on the scarcity of things or on their abundance, or rather on the opinion that we have of their scarcity or their abundance. I say *utility remaining the same*, because it is plain enough, that in supposing them equally rare or equally abundant, one judges them more or less of

value, according as one judges them more or less useful." In illustrating these principles Condillac criticises the opinion that water has no value because "it costs nothing to procure it; and the value which it obtains by transport, is not its value, it is the value of the cost of carriage." "It is very astonishing" he says in answer, "that one pays the cost of carriage to procure a thing that is worth nothing, a thing does not have value because it costs, as one may suppose, but it costs, because it has value." Cost he regards as consisting not merely of expense but of labor. Labor he defines as an action or a continuation of actions for the sake of obtaining an advantage. Even water at the bank of the river has value; it also has a cost, namely the action of kneeling to take it; "an action which is a very small labor, ... but then the water has the least possible value." But it is worth the labor performed to procure it. Condillac views cost, then, as neither the cause nor the measure of value, but the evidence of it. He also contends against the idea that a thing can have value only as it has a certain degree of scarcity. "*A certain degree of scarcity.* This is just what I do not mean. I conceive that a thing is scarce, when we judge that we have not enough of it for our use; that it is abundant, when we judge that we have more than we need. In fine, I conceive that a thing of which one makes nothing and of which one can make nothing has no value, and on the contrary a thing has value when it has utility; and if it has not that by which it is useful, it will not have a greater value in scarcity and a less in abundance." Condillac's conception is, in brief, that subjective utility is the ultimate source of value, while subjective utility made definite by the urgency of our need, which is itself a

function of scarcity, determines the amount or degree of value. His theory is more consistently psychological than that of either Turgot or Galiani. Neither of these writers realize to the same degree the importance of the psychological reflex [1] from such external conditions as the state of supply, they do not speak in the same pointed way of utility, scarcity, labor, etc., as working through the mind, through human thought and feeling.

Passing to the formation of price, Condillac discusses two cases of exchange. In the first case I exchange my surplus corn for your surplus wine; in the second my surplus is sufficient for you, but your surplus is not enough for me. In this case I will not give you the whole of my surplus for yours, since I want some left to satisfy the balance of my need elsewhere, and you wanting all my surplus will not give all yours for any less. After many reciprocal offers a bargain is struck at valuations which lie between those first made of corn in wine and wine in corn. "When all in general agree to give so much wine for so much corn, then the corn in relation to the wine and the wine in relation to the corn have each a value which will be recognized generally by all." "Now this relative value generally recognized in the exchanges," he continues, "is that which is the foundation of the price of things. The price is then only the estimated value of one thing in relation to the estimated value of another. . . . The things are reciprocally the price of one another." Further as to the nature of price, "In the first place," he says "the price of things is relative to the estimation that we make of them; or rather it is only the estimation that we make of one in relation to the other, and this is not astonishing, for originally, price and estimation were

[1] Zuckerkandl, Zur Theorie des Preises, p. 45.

words entirely synonymous, and the idea that the former at first signified, is identical with the idea that the second expresses to-day. In the second place, they are reciprocally the price of one another." The words price and value ought not to be used interchangeably. "When we have need of a thing it has value; it has it by that alone, and before there is any question of making an exchange. . . . . . It is only in exchange that it has a price . . . . and its price . . . is the estimation that we make of its value when in exchange we compare its value with the value of another."

The causes of the variations of prices Condillac holds to be first, abundance and scarcity, because they make needs more or less; and second, alterations in the relative quantities of things to one another, or, to use his way of putting it, alterations in the number of people desiring to exchange one thing in relation to the number desiring to exchange another. In an exchange each party thinks that he gives less value for more, otherwise he would not exchange. This would always have been understood if exchanges had always been made without money, for each one would have seen that he gave what was to him a superfluity for what was necessary. But the advantage in exchange is not always equal: one may give of what is a superfluity to him to get what is a necessity, and the other may give of what is a necessity to him to get what is a greater necessity. In this case the former gains more than the latter. The use of money as a common measure of value has led people to think that they exchange equal value for equal value. By this argument, in pointed opposition to the physiocrats and Turgot, Condillac lays the foundation for his theory that wealth is increased by commerce. It was criticised

by Le Trosne[1] who maintained with great persistence the doctrine of Quesnay that in buying and selling there is only exchange of equal value for equal value, and that therefore commerce is not instrumental in the production of wealth.

The psychological theories of this period deserve more consideration than they have received.[2] They were attempts to trace economic phenomena to their ultimate sources. They were more profound than any that had yet been offered. But they were incomplete. Turgot saw that the judgment of man is controlled by external conditions and he made cost in terms of energy the ultimate arbiter of value; but, although he did not wholly neglect it, he did not give sufficient weight to the influence of the supply on hand, or the amount of enjoyment already obtained from the consumption of a good, in other words the urgency of the specific want in determining the portion of energy any man would be willing to devote to the acquisition of another good of the same kind. Condillac, on the other hand, neglected the influence of cost upon the judgment estimating utility. Neither saw in all its details the process by which want and provision for want mutually limit each other in determining the personal valuations of buyers and sellers, before they enter the market where an exchange value is finally set upon the good.

The psychological method did not appeal to the orthodox physiocrats. The object of their investigations was after all practical rather than theoretical, they were really seeking measures by which national prosperity could be secured and not the ultimate causes of certain

[1] De l'interest sociale, Daire, p. 905.

[2] For an exposition of these theories see an article in the *Revue d'économie politique*, Sept. 1897, by A. Dubois.

phenomena interesting in themselves as unsolved problems of nature. They did not derive their measures from general principles already established, but sought these principles to support the measures. Economic science did not give birth to the *impôt unique*, and the policy of freedom of trade, but was itself born because these proposed reforms needed explanation. They cared little therefore for the fine-spun theories of the psychologists. It was proving nothing but what everybody admitted, to show, for example, that utility is a necessary condition of value. They were prepared by the disposition of the mercantilists to reckon the economic prosperity of society as one reckons the profit and loss of a private business. Therefore they preferred the mechanical explanations of value which derive it either from cost considered as the expenses of subsistence or from the relation of demand and supply in the market. Mechanical theories are usually represented by two classes of writers whom we may distinguish according as they give greater weight, in explaining how the amount of exchange value is determined, to cost or to demand and supply. The physiocrats emphasized cost. The writers who emphasize supply or demand are represented, in this period, by Sir James Steuart, whose explanation deserves not to be passed over. He was a native of Scotland but had travelled abroad extensively and resided for some years in France. There he no doubt became more or less familiar with the ideas of the physiocrats. In 1767 he published an elaborate work entitled "An Inquiry into the principles of political economy." This work can scarcely be ranked as a treatise upon economic science; it is rather a series of dissertations upon the different parts of what the author

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calls the "domestic policy in free nations." He has been called a moderate mercantilist, and this title best describes him.[1]

Steuart by no means overlooks the element of cost in the determination of value, for he says that in the price of goods there are two things: the real value of the commodity, and the profit upon alienation." When a manufacture comes to be sold, there must be known: 1. "How much of it a person can perform in a day, a week, a month, according to the nature of the work, which may require more or less time to bring it to perfection. . . 2. The value of the workman's subsistence and necessary expense. . . 3. The value of the materials. These three articles being known, the price of the manufacture is determined. It cannot be lower than the amount of all three, that is, than the real value; whatever it is higher, is the manufacturer's profit. This will ever be in proportion to demand, and therefore will fluctuate according to circumstances."[2] This is Steuart's explanation of "how the prices of things are determined by trade." In his treatment of money and coins he enumerates the following principles which determine the value of things. "The value of things depends upon the general combination of many circumstances, which however may be reduced to four principal heads:

1 mo. The abundauce of the things to be valued.
2 do. The demand which mankind make for them.
3 tio. The competition between the demanders; and
4 to. The extent of the faculties of the demanders."

The function therefore of money, he adds, "is to publish

[1] Cossa, Introduction etc., p. 234; see also Cunningham, Eng. industry and commerce, vol. ii, p. 429–31; and Zuckerkandl, p. 41.

[2] Inquiry into the principles of political economy, vol. i, pp. 181, 182.

and make known the value of things, as it is regulated by the combination of all these circumstances."[1]

Steuart's treatment of demand is interesting and ingenious. Demand stands to trade as wants to bartering. Demand is relative to merchandise. A ship arriving in port offers, while the port demands; a ship unloaded demands, while the port offers. Demand is simple or compound,—simple when there is no competition of interests demanding, compound when there is such competition. It is great when the quantity demanded is great, small when the quantity demanded is small. It is high when the competition of buyers is great, low when the competition of sellers is great. The consequence of a great demand is a great sale; of a high demand a great price; of a small demand a small sale; of low demand, a low price. Demand encourages industry, and when it is regularly made, the effect of it is that the supply is for the most part in proportion to it. Then demand is simple; but circumstances may make it compound, as when the usual supply unexpectedly fails. The consequence of this is a competition among buyers which raises current or ordinary prices. Whence comes the saying, demand raises prices. Demand affects prices differently according as it is a demand for necessities or things to which people are indifferent; also according as it is a demand made by consumers, or by merchants. Steuart had the same fundamental conception of value as the other writers of his period who treated the subject mechanically. There is a real intrinsic value determined by cost, and a market value determined by the relation of demand to supply, and whether the value is high or low depends upon whether the competition be-

[1] Inquiry, etc., p. 521.

tween buyers or between sellers is the more intense. But his analysis contains little of importance beyond serving to illustrate a mechanical explanation from demand and supply, which is a working out of what had already been suggested by Locke and Law.

CONCLUSION

What now are the main features of the evolution of the theory of value up to the point we have reached? What has been the progress in the conceptions of the nature of value, and in the analyses of the causes which determine the amount of value?

The evolution of the conceptions of the nature of value is marked by two main features: the first is the growth of the conception of exchange value, and the second is the advance of a subjective conception of value. The time honored distinction between value-in-use and value-in-exchange may be safely regarded as inaccurate, for it involves two ideas that are not mutually exclusive. Value-in-exchange is really a kind of value-in-use, to purchase other goods being one way of using a good. A better distinction and one which does not have this objection may be drawn not between two kinds of value, but between two phases of value according to the nature of the valuing subject. If the value is the product of the mental and emotional activity of a single individual one phase is represented, or if it is the common product of the thinking and feeling of many persons constituting a society another phase is represented. These phases may be designated briefly as personal or individual value, and social value, although these terms are not without objection.[1] But the use of the terms

[1] They are used by Wagner, see Lehrbuch, part i, vol. i, p. 329. Prof. Wm. W. Folwell uses the term valuation in the sense here intended for personal value in lectures before his elementary classes.

subjective and objective, which have been suggested, is still more objectionable because social value, although objective to the individual mind, is still subjective to the mind of society.[1] Exchange value, according to the distinction we have made, is but a form of social value, it is the importance that is socially attached to goods because they are able to procure other goods in exchange, it is the purchasing power they are deemed to possess.

We have seen that the conception of exchange value depended upon particular historical conditions. These conditions were two: first, a "money economy," or, better, that state of economy in which goods are produced to sell, and in which each person expects to satisfy his wants by buying and not by making the thing he needs; second, a supreme interest in industrial activities spreading among people generally. The first only of these conditions was realized in ancient Greece and Rome. Among both peoples the conception of exchange value did appear, but because the second condition was wanting it was not made in any general way an object of scientific investigation and discussion. Even Aristotle, whose description of exchange value is the most complete, treated economic phenomena as subordinate to ethical.

During the middle ages neither of these conditions were present. It was a time when the prevailing economy was "natural"; when the social constitution was a system of dependent personal relationships; and economic regulation was the function of small, more or less

[1] Dietzel maintains that a distinction between subjective and objective has some point in practical economics which deals with objective fair or just values, but not in theoretical economics which deals with value only as a product of the mind. Theoretische Socialökonomik, p. 212 in Wagner, Lehrbuch, part ii, vol. i.

self-sufficient, communities. Consequently it was a period of particularism in thought. Value was an object of reflection, not as a general conception, but only as applying to this or that good. It was the worth of the thing in itself, not its power to procure other things in exchange that was thought of. The value existed before an exchange was made, and as the common estimation of the community it was the criterion by which to justify the price.

At the close of the middle ages the two conditions came into existence as an effect partly of the growing activity in buying and selling, and the expansion of the circle of common economic interests, and partly of the replacement of local by national regulation which accompanied the breaking down of the feudal system and the development of the nation and state. Not only was a "money economy" fully established, but industrial affairs were extensively discussed and written upon, and national policies were shaped largely by commercial interests. Value became a general conception and was so commonly thought of as standing for the purchasing power of the good, that the term price, the concrete expression of that power, was used as a synonym. But purchasing power was recognized as a characteristic of money before it was recognized as a characteristic of goods. This is illustrated by Puffendorf's definition of "eminent price", and in the early mercantile theory that a nation in order to command purchasing power must possess money or treasure. But with the enlargement of experience in trading, money gradually assumed the role of a mere instrument of exchange and goods were seen to be the beginning and the end of every transaction, to be the only final means of payment. When the conception of exchange value was once grasped it became the predominant conception. Locke announced

exchange value to be the only kind of value of concern in economic discussions. He has been followed not only by the physiocrats, but by most modern economists until value in economics has generally come to mean exchange value.

We come now to the second feature of the evolution of the concept of value, namely, the recognition of value as subjective. Value is naturally thought of first objectively. Indeed, " value " is not thought of at all, but *the value*, which is conceived as a quality of the object valued. That value may be understood in the subjective sense it is necessary that it become an object of scientific thought. The question should be, not what ought to be the value, but what is value? The latter question was not asked until the former had occupied men's minds for a considerable period of time. Yet in those discussions which grew out of the desire to find rules for right conduct we find the foreshadowings of later subjective conceptions.

Aristotle saw that all economic activities are caused by the variable wants of mankind and considered demand to be the ultimate measure of value. But when he said that a just exchange is one by which equal value is given for equal value he obviously had objective value in mind. The schoolmen and canonists readily accepted this doctrine, but they never really understood the relation of demand to value. They recognized, however, the dependence of industry upon wants; but they considered wants to be only the needs of man's physical nature. Those of his intellectual and emotional nature they called desires and considered them to belong to a different category. Utility was that quality by which goods satisfy wants and was carefully distinguished from the quality by which they satisfy desires, a mere pleasure-giving quality. Until these two conceptions could be reduced to one general idea, until a

common element in both wants and desires could be perceived, and utility understood in a subjective sense, it was not possible to reach a conception of value as subjective. But the canonists made some advance in this direction when they admitted that the amount of value is affected by the strength of desires and included the pleasure-giving quality among the items to be considered in estimating the true value.

The dependence of value upon subjective utility, and hence the subjective nature of value, came to be more clearly recognized by later ecclesiastical writers, and it was prominent in the views of writers on natural law like Puffendorf. It was roughly perceived by Davanzati among empirical writers, and more clearly by Montanari, who devoted several pages to showing that wants in the sense intended by Aristotle included also desires. This position was taken by Nicholas Barbon, who held the satisfying of desires to be but the supplying of the wants of the mind. He recognized both value and utility to be subjective. Value, he maintained, depends upon the use of a thing for supplying wants which proceed mostly from the imagination. "The Mind changeth: the things grow out of use, and so lose their Value." [1]

These conceptions, occurring as they did in the discourses of but a few writers scattered over a long period, and by them set forth with great brevity, did not have much influence upon the common thought of the people. In this common thought, two kinds of value appeared: one an intrinsic quality of the thing, the other the quantity of it that can be had for a fixed quantity of another thing given in exchange for it. The latter was usually spoken of as price. Both these conceptions were objective. But John Locke who belonged in this line of thought, recognized that there could be

[1] *Ante* p. 59.

no such thing as an objective intrinsic value. He distinguished between the "intrinsic natural worth of a thing," the later value-in-use, and the "marketable value" of any assigned quantity of the thing. His conception of the latter was objective; he described the causes to which it is due as purely external, that is as acting directly, not through the medium of the mind. In this position we have seen he was closely followed by Quesnay. But the minds of the psychological writers, Galiani, Turgot and Condillac were filled with the subjective idea of value, which in their writings reached full and clear expression.

We have come now to the evolution of the conception of the causes which determine the amount of value, the evolution of the law of value. The fundamental conception of the canonists was that the true or real value of anything is the value of the labor; that is, it is a fair compensation for the toil of the producer. The amount of this compensation was thought to depend upon the quality of the living customary in the class to which the producer belonged. It could be known only by the general opinion of the community. The amount of a true value was then a quantity ethically determined and rested upon a judgment of what is fair to the producer. The canonists knew no law of value. The common estimation by the community of what a thing is worth, was the basis of the just price. This, they thought, could not be trusted to market conditions, but could only be ascertained by experts capable of interpreting this estimation. But with the increase of commerce and the complication of the economic system generally, the common estimation came to be, and was understood to be, more and more the product of elements quite different from the conception of a fair compensation; such as changes in the goodness of the article, changes in the desires of the people,

special conditions as to want, and the state of supply. Its interpretation therefore, which needed to take into account all these items, became a matter of increasing difficulty. This just price itself, which was at first a single point, became a zone including a highest, a lowest, and a middle just price. As prices which were the results of competing forces would often fall within the limits of this zone, indeed would usually do so when the competition was equal, the canonists finally admitted, as appears by Scaccia, that under normal conditions the price of the market would be the just price.

But in the meantime changes were going on. The social system of place and service was giving way to one of contract and exchange. Nations were becoming conscious of their greatness, and commerce was looked upon as the instrument of national prosperity. The important question in regard to our subject was no longer, what constitutes the true value or the just price, but what decides the market price of goods, or the purchasing power of money? This was seen to be the action upon each other of two forces of which price is a result. With Montanari these forces were the quantity of goods and the need of them, with Locke they were the quantity and the vent or effective demand. The important point is that the conception of value, from being the esteem in which a commodity ought to be held, an esteem the degree of which could be interpreted by experts only, had come to be its power in exchange. Hence, it is during this period rather than during that of the canonists, that the first indications of a law of value are to be found.

In the common thought of the period the old conception of the "true value" remained as intrinsic value, which was tacitly assumed to be equal to a proper recompense for costs. The real worth of anything was the trouble

in cost to get it. Beyond this, cost of production is scarcely connected with value until the last half of the seventeenth century, when Petty and Locke bring it again into prominence. Their work was the beginning of a deeper analysis of the law of value.

During the next period the cultivation of the soil was held to be a better source of national prosperity than foreign commerce and thought turned from intermediate to ultimate causes of wealth. Those who were inclined to interpret the law of value mechanically held that while the temporary value in the market is the resultant of the counteraction of supply and demand, in the long run cost of production, by limiting both of these forces, is the permanent arbiter of value. They stated facts and relations, but gave little explanation of them. Their analysis of costs shows that they regarded causes as acting directly which could only act indirectly, and as simple and invariable which were in their nature most variable and complex. Thus needs and habits of the worker that determine his subsistence and the cost of production were to Cantillon and Quesnay simple, natural phenomena that could be easily estimated. The psychological writers, on the other hand, who attempted to describe the forces that oppose each other in determining value from internal causes found them to be complex and variable in a high degree. Their theory in brief was that these forces determine the personal valuations which are brought together in the market and compared, and that the market value and price is that upon which it is possible for the buyers and sellers to agree as a result of this comparison. Galiani and Condillac held the opposing forces in the primary contest to be utility and scarcity, Turgot, utility and cost.

That none of these earlier attempts to explain value are satisfactory is not to be wondered at when

we consider the complexity of the phenomena, and when we remember that more than a century and a quarter has passed and there is yet no formulation of the law of value, that has met with general approval. But on the other hand so much was done that there is scarcely any proposition of importance in the modern discussion of value which was not either stated or suggested by the writers of this first period of economic science, and which had not been discussed before Adam Smith made political economy a world study.

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WITH SPECIAL REFERENCE TO THE BUDGET

BY

FREDERICK R. CLOW, Ph.D.

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PREFACE.

This paper, like two others recently issued by the Association, (see preface to no. 4 of the last volume) originated in a suggestion from the late Professor Charles F. Dunbar. The writer entered upon the study of city finance under his direction in 1894, and has pursued it since then whenever the exactions of regular duties permitted.

The result here given forth, however, is incomplete. Some parts of the paper, like the chapter on accounts and reports, are decidedly summary when they might have been made much more satisfactory by the expenditure of more work upon them. Other parts, like the sections on taxes and debts, are purposely treated merely in skeleton. Moreover, financial administration, treated apart from that which is administered—expenditures, revenue, and indebtedness—can not be other than a fragment; to study administration alone is like studying a machine apart from the work it is to perform. Neither can this fragment claim to be complete even as far as it goes; it could not be complete because of the breadth of the subject, and the crudity of the material for its study. A satisfactory comparative study of city finance or of any part of it, must await the exhaustive study of many individual cities, such as has already been made of New York and Baltimore, and is now under way, of Chicago and Providence. The reader should remember that all general statements, made without qualification, apply only to the cities named in the list in Appendix A; also that the enumeration of certain cities as possessing a

given characteristic does not imply that there are no others, as the data on many points are far from complete. Nevertheless, a provisional study like this, though with these necessary limitations, has seemed to the writer the best method of attacking the subject.

Owing to the length of the time over which the work has extended, some of the statements may be made in the present tense which are no longer true. It is probable also that there are some out-right errors; the nature of the sources (for which see Appendix), made certainty on many points impossible or exceedingly difficult to obtain; this is especially true of data gained by correspondence.

The writer is deeply indebted to the officers of the one hundred and two cities that are included in this study. In twenty-three of these cities he has visited them in person, and never failed to receive every courtesy and aid that could be expected. Nearly all have responded freely to his repeated requests for data and documents. One thing is certain: however much corruption there may be in our city governments, very little of it can be laid to the charge of the capable and high-minded comptrollers and treasurers who administer the finances. Their feeling of responsibility, and the professional pride they take in their work, are one of the hopeful signs of the times.

Among the sources of information mentioned in the Appendix are the names of a few friends who have given aid in some form.

F. R. CLOW.

Oshkosh, Wis.,
November, 1901.

CONTENTS.

CHAPTER I.

INTRODUCTION.

I. CITY AUTONOMY.

On its political side the public finance of cities exhibits a broad line of distinction from that of states, in that its liberty of action is limited. The government of the state exercises sovereign power; it acknowledges no superior; it is hampered by no restrictions except the relatively permanent ones set by its constitution; the only positive demands upon it are those made by the exigencies of the situation. For states that are united in a federal government there are limitations of function and of taxing power; these are sharply defined in the constitution, and otherwise state sovereignty remains unimpaired. In the United States there is very little connection between the federal and state governments; each has its own officials who bring it into immediate relations with the people. With these few exceptions, the government of a state may assume what functions it pleases and may leave untouched what it pleases; it may spend little or much upon them; it may levy what taxes and incur what debt it pleases; and it may determine absolutely the form of its financial administration.

On the other hand the activity of city government of the present time is limited in many ways. In the first place the city government is created by the state government, and may be altered or abolished by it at pleasure. In the functions it may exercise, in the amount it may spend on them, in the kind and amount of taxation, in the purpose and amount of borrowing, in the machinery of administration, in everything down

to the smallest detail, the city may not be left independent but may be regulated by the state government. Then, what complicates the case more than all else, the state makes the city an agency for performing its own functions; so that the city is collecting and spending money for the state as well as for itself.

In earlier ages a great part was played by cities that were at the same time sovereign states. But these city-states have nearly all disappeared; those of ancient times were absorbed by the Roman Empire and those of the middle ages by the modern territorial states. Hamburg, Lübeck, and Basle are surviving examples, though with only the partial independence of federated states. The soil of America was appropriated by the territorial states of Europe before cities were established or even settlements were made by white people; nevertheless there have been a few examples of the city-state. Some of the New England towns in the seventeenth century, though only cities in embryo, were practically independent states. Such for example was New Haven from its foundation till it was united with Connecticut in 1662. For a few months in 1849 San Francisco conducted its government entirely to suit itself, but was finally induced by a tactful governor to return to the old laws till a charter could be obtained.[1]

The powers enjoyed by cities in the United States are granted by the state legislatures in special charters or in general laws. No authority is given to do anything and everything; the powers granted are enumerated in detail, and no others may be exercised unless clearly implied in the express powers or indispensable

[1] Johns Hopkins Studies in historical and political science, Seventh series, ii, 37–46. Also Annals of the American academy of political and social science, xii, 387–408.

to carry them out. The language of the law is construed strictly. "Any fair reasonable doubt," says Judge Dillon, "concerning the existence of a power is resolved by the courts against the corporation, and the power is denied."[1]

No distinction is made between the local functions and the state functions of a city; so no clear line is drawn between activities that are *permitted* and those that are *required*. Mandatory provisions are inserted frequently about purely local concerns. The legislature of New York "provided for a commission to attend to the public parks, which were evidently a matter of purely local concern. It has within recent years appointed an aqueduct and a rapid transit commission, both bodies attending not to state but to municipal business . . . . In certain cases it has even provided that certain specific streets shall be paved, has imposed burdens upon cities for the purpose of constructing sewers or bringing in water."[2]

In many states it has been attempted to prevent this excessive intervention of the state in local affairs by a constitutional requirement that the legislature shall pass general laws for the government of all cities, and in most cases prohibiting special laws altogether. But this is evaded to a great extent by dividing the cities of a state into classes according to population so that each large city will have a class to itself, and therefore a body of general laws that apply only to itself. By analogy such a body of general laws is usually spoken of in informal language as the city "charter." In Pennsylvania class 1 includes only Philadelphia, and class 2 only Pittsburg and. Allegheny. So Indianapolis in

[1] Municipal corporations, 145.
[2] Goodnow, Municipal home rule, 22, 23.

Indiana, Louisville in Kentucky, Omaha in Nebraska, St. Louis in Missouri, San Francisco in California, and Helena in Montana are the sole representatives of class 1 in their respective states. In Ohio an elaborate classification has resulted in a separate body of legislation for each city in the state that is mentioned in this study. A plan is on trial in Washington, California, Minnesota, Mississippi, and Missouri of allowing cities to frame their own charters; whether it will work well enough to be followed extensively is still a question. So with special legislation for the larger cities unrestrained in all the New England states, and quite generally in the south and in the mountain states of the west, and with the constitutional prohibitions existing elsewhere against such legislation more often evaded than observed, a large majority of the cities of the United States are subject to constant regulation by the state legislatures.

The minuteness of these regulations in some cities is amazing. The Consolidation act of 1882 for New York city required that the police force should consist of a superintendent, four inspectors, twenty-two surgeons, twenty-three hundred patrolmen, and of one captain, two door-men and four sergeants to each fifty patrolmen; and the act fixed the pay of each grade.[1] The charter of Greater New York contains similar provisions. In California the laws prescribe the entire force of officials, clerks, stenographers, messengers, etc., which a city shall maintain and fixes the salary of each. In Denver the "general salary" list fixed by law amounts to over $100,000 in a total budget of $800,000; in addition the law fixes the number and pay of employees in several of the departments.

[1] Sec. 265.

The legislature always attempts to make it compulsory for cities to pay the interest on their debts and something on the principal by sinking-fund or otherwise. These debt requirements though occasionally evaded, are usually successful—more so than formerly,—and hold the city to the payment of certain fixed sums.

Frequently an entire department of city administration is placed in the hands of a commission appointed by the governor of the state. Such is now the case with the police departments in a number of cities,[1] the boards of health in Detroit and New Orleans, and the Lincoln Park board in Chicago. In Philadelphia, Fairmount Park is under a commission appointed by the Court of Common Pleas. In San Francisco, before the new charter of 1898 went into force, the departments of health, police, fire, parks, and elections were ruled by state commissions.

This means of taking local administration out of the hands of the city government is frequently used to carry out extraordinary work of great magnitude. The New York aqueduct and rapid transit commissions have already been mentioned. A system of main sewers has been recently constructed for Boston and the surrounding towns by a state commission, and now the water supply is being provided for in the same way. A remarkable case of a work of this kind being executed against the wishes of the city government is that of the city hall of Philadelphia. In 1860 the legislature of Pennsylvania decided that Philadelphia should have a new city hall, and passed an act for that purpose; the war checked the undertaking for the time being. In 1870 another

[1] Baltimore, Boston, Chattanooga, Cincinnati, Dallas, Denver, Fall River, Kansas City, Manchester, St. Joseph, St. Louis, South Bend and Terre Haute (Ind.), of the cities of over 25,000.

act was passed. This act named the members of the commission and, as interpreted and enforced by the courts, compelled the city, in spite of every obstacle that the local authorities could interpose, to provide the necessary funds by taxation and borrowing.[1] Up to July 1, 1901, the building cost $22,581,406, and it is still unfinished.

An extreme example of the small control over the budget left to the regular city government formerly existed in New York city. In 1868 out of a total tax-levy of $17,728,590 for local purposes, only $3,710,709 was at the disposition of the council.[2] Then again "in 1886, Mayor Grace showed, in detail, that almost exactly three-fifths of the appropriations were practically out of the control of the board."[3] There are a few cases where the legislature has made the budget of a city or had a control over it. For the city of Washington and the District of Columbia, the budget is passed by Congress. From the earliest times to 1871 the annual tax-levy of New York city had to receive the approval of the state legislature. Before 1856 this was only formal, as no changes were ever made nor was approval ever withheld. But in 1856 the legislature changed ten items, and from that time increased its interference in the budget until the maximum was reached under the Tweed regime. "The Legislature once went so far even," said Mayor Wm. R. Grace, "as to make our municipal budget upon the reports of its own committees."[4] The legislature relinquished this right in the charter of 1871.

[1] A. & P., Philadelphia, 221–4; and Wharton School Studies, The city government of Philadelphia, 145–50.

[2] Durand, The finances of New York city, 87.

[3] *Ibid.*, 261.

[4] Harpers' Magazine, Sept., 1883.

Another instance is that of Memphis. In 1879, the legislature abolished the government of the city to enable it to repudiate its debt; the area was erected into a "taxing district," and the law stated "that the necessary taxes for the support of the government thus established shall be imposed directly by the general assembly of the state of Tennessee and not otherwise." The power of levying taxes was restored to the local authorities later, after a compromise had been effected with the creditors of the city.[1]

On the other hand, the constitution of California prohibits the legislature from imposing taxes on a municipality for local purposes and requires that the power be vested in the local authorities by general law. It is interesting to compare this with the fact noted above as to the minute statutory requirements regarding the number and salaries of city officials. The legislature may not certify a tax-levy or construct the city budget, but it may prescribe any number of items which must be inserted in the budget. This, as far as the writer knows, is now the universal practice in all the states, though the possibility of more direct interference usually remains, as in Tennessee.

In the matter of borrowing the cities have greater independence. It is "beyond legislative competency to coerce a municipal corporation to contract a debt for local purposes without its consent."[2] The Philadelphia city hall case is an exception which was allowed by the courts. Of course it is always possible that a city may be obliged to incur temporary or floating debt as a result

[1] Session laws of Tenn., 1879, ch. 11, § 9; 1893, ch. 95. Also a paper by James H. Malone in Proceedings of the Baltimore Conference (1896) for good city government.

[2] Dillon, Municipal corporations, 123.

of burdens placed upon it by the legislature; a complaint to this effect about the salary list comes from Denver.

Restrictions of one kind or another on the liberty of cities to incur debt are all but universal. Many state constitutions fix the limit at a certain percentage of the assessed valuation of taxable property within the city. A few, like Massachusetts, that lack a constitutional limit, fix one by statute. The favorite limit is five per cent. though there are variations from two and one-half per cent. for all cities in Massachusetts to eighteen per cent. for Richmond; Grand Rapids is limited to a fixed sum. With these restrictions should be coupled the general principle maintained by the courts that a city has "no incidental or inherent right to borrow;" the power must be expressly granted.

Similarly, though much less generally, there are limits to the rate of taxation, though only the newer southern states embody such provisions in their constitutions. In Massachusetts, outside of Boston, the maximum rate is $12 in the $1,000 for current expenses of the city, with no limit to the rate for county and state taxes or for paying interest and principal of debt. This plan is frequently followed elsewhere. Schools are often excepted from the limit, or a separate limit set for them. Limits are sometimes set to the rates for various purposes; thus, for Minneapolis:

Streets,	$2.00	in the 1,000
Permanent improvements,	2.50	"
Current expenses,	6.50	"
Parks,	1.00	"
Library,	.50	"
Schools,	4.00	"

This amounts to fixing the maxima of certain items

in the budget. Occasionally fixed sums are named as maxima, as in Detroit and formerly in Syracuse.

No limits are fixed to the rate of taxation for cities in Pennsylvania, in California except in San Francisco, in Colorado, and in Virginia; Baltimore, Charleston, and some of the cities in Michigan and New York, are subject to no limits. In the majority of cases cities levy taxes up to the limits, thus showing that the maxima are really operative. The absolute points at which they are fixed signify little, owing to the undervaluation in the assessment; Boston is limited to $9 in the $1,000, while Chicago, Omaha and some other cities press against limits that are several times as broad.

Constitutions and charters frequently contain a prohibition like the following in Pennsylvania constitution: "The general assembly shall not authorize any county, city, borough, township, or incorporated district to become a stock holder in any company, association or corporation, or to obtain or appropriate money for, or to loan its credit to, any corporation, association, institution, or individual."[1] Appropriations for religious purposes are prohibited. Various ways are provided by which the state can compel a city to fulfill its contracts. Private property may be taken for public purposes, and compensation must be allowed by due process of law. Procedure in regard to the budget and the entire finance administration are regulated by statute—minutely, as in the case of Boston and New York, or in broad general terms, as in the case of Chicago and St. Louis.

State administrative control over city finances, which is so prominent in Europe, exists only in embryo here. In Colorado, Nebraska, Texas, and Illinois, there is state provision for the registry of bonds. In New Jersey and

[1] Pennsylvania constitution, art. ix, sec. 7.

New Hampshire, facts relating to the finances of cities are collected and published by state authority. In the Dakotas, the public examiners, who inspect the state banks, also examine the accounts of public officers, including those of cities. In most states there are state boards of equalization to adjust assessment of property. In 1897 Missouri passed a law requiring local finance officers, when they call in bonds that are redeemable on call, to notify the state auditor of their action.[1] In a few states the governor has the power to remove local officers. Projects for the extension of such administrative control are continually urged, and some of them will doubtless be realized in the near future.[2]

On the other hand, judicial control has been an ever-present and vital thing.[3] Wherever the interpretation of the charter can be questioned or the rights of an individual are affected, there the courts may be called on to review the action of the city. The courts, however, never review the exercise of discretionary powers by public officials, or consider questions of expediency; they merely enforce the law as it is, or rather as they understand it to be. Moreover, they do not seek cases; they only adjudicate cases that are brought before them by individuals; if no one complains against a city treasurer, who is acting contrary to law, the courts will not interfere. So judicial control is merely the instrument through which control by the constitution and by the legislature is executed.[4]

[1] New York State library Bulletin, Legislation by states in 1897, marginal no. 1145. Mo. '97, p. 40.

[2] See *post*, p. 107.

[3] See *post*, p. 57.

[4] The control exercised over the city by the state is treated at considerable length by Dr. Delos F. Wilcox in Chapter III of his book, The study of city government, and still more fully in the works of Professor Goodnow.

2. LIMITATION OF FUNCTION.

Another phase of the position of the city should be noticed in this connection. Mention has already been made of the fact that the state may assign what functions it pleases to the city. But the city government is not the only local government to which the state may commit the performance of functions, either state or local; there is nearly always one other—the county, and sometimes there are several—the township, the school district, etc. The divisions of functions between these bodies will be noticed in this study only so far as they pertain to finance administration.

Except in New England, the county was originally the agent of the state and of all local sub-divisions in making the tax-levy, and in supervising, where not actually making, the assessment of property; such it remains for the most part now. Therefore the city's levy of taxes is certified to the county auditor or clerk, except where a special variation has been introduced. Excepting, farther, Pennsylvania, Michigan, Wisconsin and northern Illinois, taxes for all divisions are collected by the county authorities, again, of course, allowing for special arrangements; so the city receives from the county the taxes it has levied. But where a great city grows up in a county, the county government decays; in some cases it practically ceases to exist, while in others it remains a curious vestige of its former self attached to the government of the city. Philadelphia, St. Louis, and San Francisco, are co-terminous with counties; there the county treasurers, auditors and clerks have disappeared, their functions being performed by the corresponding city officers. The old New York city was co-terminous with New York county; this county now includes the

boroughs of Manhattan and the Bronx; the borough of Brooklyn covers the same area as Kings county, and the borough of Richmond, the same as Richmond county; Queens county is partly included in the borough of Queens. These counties have no treasurers of their own; all except Kings entrust their funds to the city comptroller, and after this year Kings will do the same. Boston, though not quite covering a county, has entirely absorbed the financial part of the county government; the city holds all county property and pays all the county expenses; the city treasurer and auditor are respectively treasurer and auditor of the county, though receiving extra salaries therefor. On the other hand the cities of Akron, Indianapolis, and Ft. Wayne have no treasurers of their own, but employ the county treasurers to hold and disburse their funds. In the south, the simpler plan is sometimes followed, of cutting the city entirely out of the county in which it is situated, and letting the county functions fall to whatever municipal departments may be most convenient, while the city steps into immediate relations with the state for the assessment and collection of state taxes.

In New England, the town has always levied, assessed, and collected all taxes, including those for the county and the state. So when the town grows into a city, the city has a wholly independent system of taxation, and one in direct connection with the state. In other states, where the town system of government exists, the assessment is made by the town assessor; and in New York, Pennsylvania, Michigan, Wisconsin, and Illinois, the taxes are also collected by a town collector. These functions naturally attach to the city as well. But not always does the town grow into the city; in one instance—New Haven—the city was superimposed upon

the town, and in another—Chicago—the towns were superimposed upon the city. Until 1897, over one hundred years after the city of New Haven was created, the city area was included in the town of New Haven, and the government of the latter made the assessment of property. From the introduction of the township system in 1848 to the passage of the assessment law of 1898, the assessment and collection of taxes in Chicago was a town function; the collection remains such still, though a law passed in May, 1901, will, when put into operation, practically abolish township government in Chicago.

The school district as a local division independent of the city, exists extensively from Pennsylvania westward. In Ohio, Missouri, and the new northwestern states it is universal. It is found also in the southern states. The school district may or may not be co-terminous with the city. The school board makes its own budget, certifies the tax-levy to the county authorities, holds and spends its own funds, borrows money, and holds the title to all school property. In some states it has the status of a municipal corporation. Of course, in all such cases the revenues and expenditures for school purposes do not appear in the budgets or reports of the cities.[1] The school district may, however, employ the city's financial officers; thus the auditor of the city of Cleveland is also the auditor of the Cleveland board of education.

Chicago[2] affords two more examples of local governments superimposed upon a city. One of these, the park boards, has already been mentioned. The large parks

[1] The two opposite views regarding the relation of the school board to the city government are presented by Professors Young and Rowe in Annals, xv, 171–203.

[2] For a fuller treatment of these references to Chicago, see Sparling, 137–57, 186.

are grouped in three districts; over each of these is a board, entirely independent of the city government, which levies taxes and is a municipal corporation for a single purpose. The parks of other cities in the state are under a similar management. The other example is the Chicago sanitary district created for the purpose of constructing and operating the drainage canal. The canal is under the control of a board elected by the people of the district. This board is a municipal corporation with all the financial powers of a city.

3. FINANCIAL ORGANIZATION.

Concerning every social structure the first question is, What part directs and co-ordinates the activities of all the others? In the United States what is known as the cabinet system in state government and the council system in city government, *i.e.*, with the legislature supreme and the other departments strictly subordinated to it, does not exist anywhere. Ours is throughout a government of checks and balances, of division of powers. In cities this is sometimes carried out consciously, as in Cleveland where they have what they call the "federal plan," or in California where this passage occurs in the municipal code: "Every city has legislative, executive and judicial power. Its legislative power is vested in a common council; its executive power in a mayor and his subordinate officers; and its judicial power in a police court."[1] Montana has the same provision word for word, and Kentucky has a similar one for Louisville, with the addition that neither department shall exercise any power belonging to the other except as allowed by law. More often, however, the separation of powers has been established without

[1] California political code, § 4355.

anything being said about it, as if no other system were possible. But an exact balance of powers between three departments of government has never been maintained. In city government the judiciary has always been of small importance, being entirely overshadowed by the state judiciary; it is absurd to speak of the police court as co-ordinate with the entire group of executive departments of a city.

But between the executive and the legislative branches of city government, the balance has been better established. Up to 1850 the councils were everywhere decidedly predominant. Since then, the executive departments have gained immensely. Immigration and the democratization of government contributed to start the change about that time; also the complexity of social life caused by the great mechanical inventions. But more potent was the fact that before the middle of the century there were no very large cities in the United States, for it is chiefly in the large cities that the prominence of the executive appears.

The city charters, even now in most cases, seem to leave the greater power in the hands of the council. It passes the budget, it fixes the tax-levy, it sanctions loans, it approves contracts, it orders the payments from the treasury. These powers nominally carry with them not only complete control over the finances but over the entire government, executive as well as legislative. The number and names of its committees give some idea of what the council attempts to do. An inspection of such committee lists as are at hand produces the table given herewith. The committees are all standing committees; when the councils are bi-cameral, the committees are joint, with the exception of three

cities where each branch of the council has its own committees.

NUMBER OF FINANCIAL COMMITTEES IN THE COUNCILS OF THIRTY-FIVE CITIES.

Finance,	27	Auditing,	6
Claims,	16	Accounts and claims,	4
Accounts,	14	Appropriations,	2
Licenses,	11	Estimates,	2
Taxes,	9	Contracts,	2
Ways and means,	9	Budget,	1

There were seven other committees with various titles, making a total of 110 and an average for each city of a little over three.

But with all this elaborate array of committees and with great potential authority in its hands, the council in a large city rarely gives the character to the financial system. Even in making the budget, which is peculiarly a legislative function, the council frequently adopts the recommendation of the comptroller without important change. How this comes about will appear in detail as this study proceeds, but the general reason may be stated here. Administration in a large modern city is both complicated and delicate, especially the financial side of it; it can be handled only by a man above average ability and one who devotes a large amount of time to it. Councilmen who have the time to spare lack the ability or the inclination to master the problems, while those able and willing to do so cannot find the time. The councilmen simply *cannot* grasp the work effectively, and the work simply *cannot* be bungled; consequently it is turned over to the executives, and the more there is to do, the more they have a free hand in doing it. Hence the disposition shown in recent charter legislation to exalt the executive at the expense of the council, is in accordance with a tendency that, as far as

financial administration is concerned, seems to inhere in the very nature of things. It is difficult to see how the council can be rehabilitated except by making the executive officers responsible to it on the plan of the English cabinet.

The precise point in the system where the real power is located depends much on the personality of the officials. Government is carried on, not by charters or laws, but by men. Every institution, political or otherwise, is directed by some controlling mind; he is often not the nominal head; sometimes he is inconspicuous to the superficial observer; but he is there, selected for his fitness by the course of events; and the system is incomprehensible until he is located. In a city's financial system this man is sometimes the mayor, sometimes the treasurer, frequently the chairman of some committee of the council, most often the head of the accounting department or his chief assistant. Add to this fact another, namely, that customs grow up in time which constitute a body of unwritten law, and it will be seen that the words of the charter or the statute go only part way in telling us the real structure of a system. Therefore, the investigator must not only study documents, but also come into contact with the people who are actually carrying on the government.

The budget, where one exists at all, forms the central point in financial procedure. It is the point upon which the will of the people is brought most directly to bear. The budget, therefore, will properly be the subject of the next chapter. Financial administration, in the narrower sense, consists in carrying out the provisions of the budget. It includes four essential departments: (1) the treasury for the custody of funds, (2) the system of control and accounts to supervise pay-

ments from the treasury, (3) the revenue system to furnish the treasury with a regular supply of funds, and (4) deficit financiering, or borrowing and the management of the debts thus incurred. Each of these will have a section devoted to it in a subsequent chapter. The head of the department of control will be referred to as the comptroller, although many cities designate him by another title. Then a chapter will treat of reports and other means of securing publicity. A final chapter will be given to a historical sketch of the development of budgetary systems and financial procedure in various sections of the country.

CHAPTER II.

THE BUDGET.

Bastable[1] defines *budget* as "a valuation of receipts and expenditure or a public balance-sheet, and a legislative act establishing and authorizing certain kinds and amounts of expenditures and taxation." Stourm's[2] definition is substantially the same: "Le budget de l'État est un acte contenant l'approbation préalable des recettes et des dépenses publiques." This is the meaning used in the following pages.

I. REASONS FOR THE DEVELOPMENT OF CITY BUDGETS.

For various reasons the cities of the United States have surpassed the state and federal governments in the development of their budgetary procedure. The chief reason is the situation the city finds itself in as regards revenue and expenditure.

Revenue comes mostly from a direct tax levied on the capital value of property. For two-thirds of the cities the charters fix a maximum rate that may be levied, and half of these find it necessary to levy up to the maximum. Philadelphia, Nashville, and Richmond, though not limited by charters, have adhered to the same rates for many years. Then as local expenditures far exceed those of the state or county, the city rate is the most potent factor in making the total rate high or low. City councils are in closer touch with the people than state legislatures, and all taxes are assessed and collected by local authorities; so the city government

[1] Public finance, 2d ed., 634.
[2] Le budget, 3d ed., 4.

feels the full force of the universal aversion to paying taxes, and will increase the tax rate only under dire necessity. For all cites, therefore, revenue is limited either by charter, or custom, or what the taxpayers will stand.

Consider alongside of this fact the multitude of services and the tremendous demands for expenditure which are being forced upon local government by modern urban life, under the direction of modern science and engineering. This means that city governments must "cut the coat according to the cloth," and apportion the limited revenue among the various services on a comprehensive plan in which all are given their relative importance. Hap-hazard appropriations like those of the federal government and of most state governments would be intolerable.

The restriction of city autonomy is an important factor. Under the tutelage of the state legislature the city government is often compelled to follow budgetary procedure, sometimes wholesome and sometimes not, which the legislature will not impose upon itself. One such requirement, existing almost universally, is that the city shall levy its tax for specific purposes—so much for schools, so much for parks, so much for debt—and not a single sum or rate for the aggregate expenditure; the limit to the tax that a city may levy is usually in the form of limits to the taxes that may be levied for these specific purposes. Here we have the elements of a budget.

2. FORMS OF THE BUDGET.

It is convenient to divide the forms of the budget in use among the cities of the United States into three classes: (1) the bare tax-levy, which is only a budget

in embryo, (2) the tax-levy preceded by detailed estimates, the latter remaining without legal force, (3) the tax-levy accompanied by detailed appropriations, the whole constituting a well-developed budget. Each of these will now be treated.

(1) The simplest form of budget is the bare tax-levy. In Little Rock it is as follows:

	Mills.
General fund,	5
Interest fund,	½
Sinking fund,	½
Total.	6

These are the maximum rates allowed by law, and the city has not for years been able to get along with less; the tax-levy, therefore, cannot be anything else and the city has practically no control over a large part of its revenue. The actual apportioning of the money in the general fund among the various departments is done by the city council when it makes contracts and allows bills from month to month. There is, of course, much informal forecasting and apportioning of this fund for a year in advance; some of the city officers and members of the council give the matter much thought; there is discussion between them in casual conversation, in the various council committees, and in the council itself. But other than the ordering of the tax-levy given above, there is no regular formal action by any part of the city government which sets a limit to expenditures, either in the aggregate or by departments, for a year or any other long period, or which makes an official estimate of the revenue that will be available and may be counted on.

This elementary budget is probably the only kind that exists in many of the smaller cities of the United States. Even when the tax rate is not fixed by a statu-

tory limit, there may be a customary rate which remains unchanged from year to year. In such a case if the expenses also remain unchanged or grow only as the valuation of property grows, the officials may be spared the task of making an annual balance sheet or of estimating in advance either the revenue or the expenditure.

A tax-levy which names the sums ordered to be raised (for example that of Elizabeth given below), instead of the rates to be levied is a short step in advance. It calls attention to exact sums and, being more definite, perhaps tempts to more careful budget-making. Such a tax-levy must nearly always be constructed anew each year; for in a growing city the same levy as last year will not produce an increased revenue this year, as it would do if the levy consisted of rates instead of sums.

(2) It is a long step in advance towards a complete budget when the forecasts of the receipts and expenditures for a year are put into writing, reduced to some kind of a system, and considered by the council when the tax-levy is ordered. For example, the tax-levy of Elizabeth for 1897 was as follows:

Public schools,	$91,133 61
Streets and parks,	18,500 00
Fire and hydrants,	21,500 00
Police department,	47,500 00
Charities,	17,500 00
Street lighting,	22,000 00
Printing,	2,500 00
Public buildings,	3,500 00
Salaries,	10,900 00
Health, including scavenger,	10,000 00
Sewers,	2,500 00
District court,	4,000 00
Expenses of assessing taxes,	9,000 00
Contingencies and elections,	6,000 00
Interest on debt,	125,000 00
Total,	$391,533 61

The board of assessment and revision of taxes was di-

rected to "assess the sums mentioned above for the respective objects named."[1] The budget as enacted consisted merely of the above fifteen items. But these items were the totals of a much larger number which were collected or estimated by the comptroller, and revised and accepted, though not enacted, by the city council. In 1895, the board of finance of Albany, then under its old form of government, submitted the projected budget to the council in the form of twenty-three items; but the details of this budget were given in "addenda" to the length of 310 items. After making a few slight changes, the council enacted the twenty-three items. The addenda were merely provisional forecasts and remained without legal force.[2]

In these cases the budget consists of nothing but the tax-levy. Any number of details may be used in the estimates, but the final enactment is merely an order on the taxing authorities to levy taxes for the benefit of a small group of funds. The middle-sized cities of the west and south use this form of budget more than any other. The value of a budget like this depends altogether on how it is carried out. During the year, as the council spends the city's money in authorizing contracts, ordering work done, fixing salaries, directing the purchase of materials, and in allowing the bills that result from these acts, it is not legally bound to adhere to the hundreds of items that were used in determining the tax-levy; it is, however, morally bound to do so with reasonable faithfulness. Now a moral obligation like this is subject to every use and abuse. The council can often vary from the estimates, as the year's work progresses, in a way that will save money or secure

[1] Proceedings of the city council, for 1897–8, p. 15.
[2] Proceedings of common council, 1895, pp. 671–84, 726–9, 743–9.

better service to the public; but a corrupt gang in control of the council can let the estimates distribute the funds wisely, at the time of year when the making of the budget attracts public attention to the financial condition of the city, and later further their selfish ends by diverting the funds to purposes not named in the estimates.

(3) The fully developed budget makes annual appropriations, thus fixing expenditures for a year, in connection with the levy of taxes for the year. For example, the budget of Boston, of which the enacting paragraphs are given in full in the Appendix to this study, orders that "the respective sums of money hereinafter specified be and the same are hereby appropriated for the several departments, and for the objects and purposes hereinafter stated," and that these appropriations be met out of the money already in the treasury, out of the "current income of the year," and out of the taxes to the amount of $12,111,196 which are ordered to "be raised by taxation on the polls and estates taxable in the city of Boston." This form of budget has been growing in favor the past thirty years and is now used by nearly all of the larger cities and many of the smaller ones, notably in Massachusetts, New York, Pennsylvania, Indiana, and Illinois.

The example of Boston just given illustrates the simplest and therefore the best method of making the appropriations—at the same time the levy of taxes is fixed and in the same measure with it. The cities of New York and Illinois make the appropriations first and the tax-levy afterwards; in Illinois the law requires that at least ten days shall intervene.

In a few cities the opposite order is followed, the tax-levy coming first and the appropriations afterwards. In

Denver, for example, the tax-levy for 1898 was as follows:

	Mills.
General purposes	8.5
Parks	1.3
Sinking fund	1.4
Interest	1.6
Total tax-levy	12.8

Immediately after this was enacted, the council divided the $870,000 which the rate of 8.5 mills was expected to yield for general expenses into twenty-eight items, making a fairly complete budget. This type of budget exists in Omaha, and one somewhat similar in Minneapolis.

In Cleveland the tax-levy is both preceded by estimates and followed by appropriations. Thus the tax-levy for 1898 was made in June, 1897, and consisted of fifteen rates for as many funds. It was preceded by a detailed estimate, running to 170 items which were prepared with great care. The rates in the levy were fixed so as to yield approximately the totals arrived at in the estimates. Then in the following January the council passed the appropriation ordinance which distributed the city's estimated revenue, but agreeing substantially with the estimates that preceded the tax-levy. Providence follows a similar plan; the estimates are made in March, the tax-levy is made in May, and the appropriations are made in September for the year beginning September 1.

These three forms of the budget shade into each other. This is decidedly true of the first and the second, and between them a sharp line cannot be easily drawn. In one city there are no estimates beyond oral reports and discussions; in another the oral estimates are embodied in the minutes of the meeting; in another, written

memoranda are used by some of the officers or committeemen and preserved for their later individual use; in another, some of the departments hand in detailed estimates of their probable needs; in another, these department estimates are preserved and variations from them permitted only with good reason. The most convenient point of separation is this: If an estimate, going somewhat into detail, is made of all the revenues and expenditures, and if this estimate is laid before the city council, and used by it in fixing the tax-levy or in forecasting the work to be undertaken during the year, and then kept on record so that it can be referred to later, we have a budget of the second class; if any one of these things is not done, we have only the embryonic budget of the first class. The point of uncertainty is whether the estimates go sufficiently into detail. The following estimate made by the mayor of Little Rock in 1898 certainly does not:

ESTIMATE OF REVENUE, EXPENSES AND REQUIREMENTS FOR 1899.

Of our floating debt there are warrants outstanding which will mature during 1899	$ 49,195 59
The approximate cost of running the city government for the year 1899 is	110,000 00
Estimated cost of the Logan H. Roots hospital for 1899	6,000 00
Total to provide for during 1899	$165,195 59
Total estimated revenue for 1899	116,000 00
Leaving estimated deficit December 1, 1899 . .	$ 49,195 59

Between the second class and the third there is some shading, though the distinction can be easily drawn. The estimates which are used by the council in fixing the tax-levy, without being enacted, may be faithfully adhered to in distributing monthly appropriations during the year—more faithfully than the annual appropriation bills of some other cities; in practice all of

the advantages of a budget of the third class are realized though we have only an informal budget of the second class. On the other hand a budget of the third class which can be altered by a majority vote of the council may be so little regarded in the actual distribution of money during the year as to be almost valueless.

3. THE BUDGET YEAR.

The idea of time is always involved in a budget, the authorized expenditure and taxation being for a certain period. In the cities of the United States this period is uniformly one year. It is usually termed the fiscal year.

This term, however, is sometimes ambiguous. In Grand Rapids, for example, what is called the "fiscal year" begins on May 1, the date on which new officers enter upon the performance of their duties. But the budget year begins August 1, while the treasurer and comptroller make their financial reports for a year ending on a Thursday in the latter part of April. Most of the departments make their reports for the official year "ending April 30," but some prefer otherwise; the year 1899–1900, according to the reports of various officers ended as follows: mayor's clerk, May 5; the mayor, marshal, assessor, and some others, April 24; the treasurer and comptroller, together with some others, as stated above, April 19; poor commissioners, and city physician, April 18; veterinary, May 31; board of health, no date. In the same volume the police and fire departments give "fiscal exhibits" for the year beginning August 1, 1898, ending July 1, 1899. The schools have a still different system of years: the report of the board of education is for the "school year ending Sep-

tember 1, 1899"; the library committee reports for the "year ending August 31, 1899"; the year ends September 9 in the report of the president of the board of education, and September 26 in the financial report of the secretary.

Richmond affords a similar example. The financial reports are for the year beginning February 1, and that they call the fiscal year. Formerly the budget was made for the same year; but it has recently, beginning with 1898, been made for the calendar year. Most, though not all, of the departments report for the calendar year.

In such cases as these it would seem that the budget year was the one most worthy of being called the fiscal year and that the others should be called the account year, official year, school year, etc. It is, however, of much importance that the budget year and the year of the financial accounts and reports should coincide; also that the budget year be the year covered by department reports. The charter prepared and recommended by the National Municipal League is defective on this point, though the provision for uniformity and inspection of accounts would be likely to obviate the evil here mentioned.

The only cities in the writer's list that have the same year for budget, financial accounts and reports, and all the department reports, are Philadelphia, Worcester, Somerville, Troy, Atlanta, all in New Jersey except Elizabeth, and all in California except Los Angeles. Many others have the same year for all except the schools; the schools are often under independent boards and they have good reason for changing the year during the summer. The constitution of California requires that the fiscal year shall commence July 1; Los Angeles

conforms to this requirement in making the budget, but for financial reports and some other purposes its year begins Dec. 1. State laws usually set a time, but permit cities to set a different time by ordinance. Changes are accordingly not infrequent, though they are least frequent in the largest cities. With about half of the cities the fiscal year begins on January 1. The others exhibit greater variety, as shown in the list in the Appendix.

While not a matter of great importance, the fixing of this point should not be made indifferently. If other conditions permit, it should come when the financial transactions are the lightest. This gives time for the labor of closing the accounts for the old year and the opening of those of the new; the outstanding orders will then be at the lowest; large items of revenue and expenditure, and works of construction will not be cut into and so divided between two years. It should also precede the heaviest expenditures by the shortest possible interval so that they can be provided for in the budget with the least liability to error. This time, at least in the northern states, is certainly in the early spring; many kinds of work, such as the construction of the streets, are then at the lightest, but will be the heaviest during the six months immediately following. That these considerations are already taken into account to some extent is seen in the fact that of the list of cities given in the Appendix, twenty-one begin the fiscal year in March and April, while only one begins in August, two begin in September and three in October.

Changes of officers should come at the beginning of the fiscal year, or near enough to it to allow each ad-

ministration to make and carry out its own budget.[1] The majority of cities follow this principle. When elections come in the autumn, the fiscal year begins in December or January 1, and the change of administration is made then; this arrangement exists extensively in New York and New England. The legislature of New Jersey in 1901 changed the time of city elections from spring to fall. Elsewhere municipal elections nearly always come in the spring, and the change of officers also. The tendency to change the fiscal year then has just been noted, but something like a third of these cities with spring elections change the fiscal year January 1. Maladjustments also exist in Buffalo, Ft. Wayne, Louisville, Little Rock, and New Orleans.

Regard should be had to the time when the taxes are levied and collected, which is usually uniform for the state. If the budget is based on the tax-levy, it is desirable that the fiscal year should begin near the time the levy is made. To have the fiscal year begin six months after the levy of taxes for it, as in the case of Cleveland, is to be unable to foresee the demands of the various departments to the best advantage.

On the other hand, to have the fiscal year begin six months before the tax-levy is actually put into operation, as in the case of New York, means that the taxes will not come into the city treasury until near the end of the year for which they are levied. The city must then make temporary loans to anticipate these taxes

[1] The charter proposed by the National Municipal League follows the opposite principle: "All taxes shall be levied and appropriations made annually not more than sixty days nor less than thirty days before the date for holding municipal elections."—Article V, section 10. This means that a new administration must carry out a budget made by its predecessors and that the responsibility for a year's work will be divided, though one aim sought in the charter is to concentrate responsibility.

and pay expenses during the greater part of the year. If, as is often the case, a considerable portion of the taxes cannot be collected until after the year for which they are levied has expired, some of these temporary loans may have to be carried over into the next year, with the result of making the accounts much more complicated and difficult to understand, as well as opening the door to deficits and floating debts.[1]

4. THE ESTIMATES.

A budget begins with the department estimates, or perhaps more accurately, with the call for the estimates, for the heads of departments could not be relied on to think of the matter in time without a reminder. In the larger cities a formal notice is sent to the departments, like the following used by the auditor of Providence: "You are requested to furnish this department, on or before the first Monday in March next, an estimate of the amount of money that will be required by your department for the fiscal year ending September 30th, 18—, and an estimate of the receipts for the same period." The printed form then gives an extract from the ordinance which requires the furnishing of these estimates.

The preparation of these estimates is sometimes required by the charter and sometimes done as a favor to the officer or committee charged with framing the budget. But it makes little difference what the legal requirement is, as heads of departments are ready enough to make their needs known; in Boston the charter says that the estimates shall be sent to the mayor in January, but in practice they are sent when he calls for them, and that is usually in December. In the smaller cities like Bangor, Burlington, Covington, Des Moines, Eliza-

[1] See pp. 65 and 96.

beth, St. Joseph and Sioux Falls, the departments make no formal estimates but state their wants orally; and in some cities as large as Milwaukee, the department estimates are not considered of sufficient importance to be put in print.

The department estimates are delivered to the head of the finance department in every city that had over 200,000 inhabitants in 1900, except Boston. In all Massachusetts cities they are delivered to the mayor, and in all California cities to the auditor. In other states in cities below 100,000 population the estimates more often go directly to the council or the budget committee. A number of cities, following the example of New York, have executive boards which receive the estimates.

The department estimates almost invariably call for expenditures beyond the city's means of payment, and upon some one must fall the difficult and thankless task of cutting them down. When they go to an executive officer, as the mayor or comptroller, he ordinarily revises and compiles them. Rarely, as in Mobile, he uses them only as a basis for his own estimates which he sends on to the council. Sometimes, as in Minneapolis, he transmits them to the council just as they come to him, without adding any recommendations of his own. But ordinarily he sends on both the original estimates and his own revisions, arranged in parallel columns, perhaps with the appropriations for the previous year in still a third column. When the department estimates go directly to the council, all of this work is done by a committee; usually it is the finance committee, occasionally the committee on budget, ways and means, or appropriations. This task of working up the department estimates into the project of a budget requires so much study

of details and so many arithmetical operations, that it can be conveniently and justly performed only by one person, or perhaps by two or three working together. A larger body can only bungle the work and follow the direction of one or two irresponsible leaders. But when once the task has been accomplished by the hand or under the leadership of an officer possessing a fair amount of common sense reinforced by a thorough knowledge of the city, and who commands the respect of the council, the budget is as good as made. To increase an item or introduce a new item, it is necessary either to raise the tax-levy, which is often impossible and always so unpopular as to be done only in extreme cases; or to strike out or reduce some other item, which is certain to encounter spirited resistance. A change raises so much discussion and takes so much time that the council cannot make many changes even if the requisite majority does favor them. Over and over again the writer has received testimony to the effect that the comptroller or mayor in revising the estimates really makes the budget. One very remarkable instance is found at La Crosse, where the comptroller made the budget during his eight years of service; only once during that time did the council make any change, and then only to the extent of a single item. It is only by paying very little attention to the recommendations of the mayor or comptroller, where any are made, and doing the whole work *de novo* by its own committee, that the council can be much of a factor in making the budget. Such appears to be the case in Chicago, and many other western cities.

In a small city the proper person to make the budget is the mayor. He is usually a person of great influence in the town, and also with the council—as the comptroller sometimes is not. He is in close touch with

every department and is in position to judge wisely of their needs. He can also command the assistance of any subordinate officer; in Boston, for example, it is understood that a large part of the work of making the budget has long devolved upon the auditor, though it is nominally the mayor's function; the exact share borne by each depends entirely on the qualities of the two men holding the offices for the time being. But in large cities there is good reason for committing to the comptroller the task of framing the budget. He is always, presumably, an able man; he is not burdened with such a multiplicity of duties—official, political and ornamental—as is the mayor; his term of service is frequently longer than that of the mayor; and he knows the details of the receipts and expenditures of all departments better than anyone else.

5. EXECUTIVE VS. COUNCIL RESPONSIBILITY.

This executive initiative in making the budget does not prevail in the smaller cities of the west, and exists still less in those of the south. But it is thoroughly established in the largest cities everywhere, and even exists in the smaller cities of the east. There the state legislatures not only give the executive of the city the initiative, but sometimes restrict the power of the council to change it. In Indianapolis and Worcester the council cannot increase the estimates. In Buffalo and Cambridge a two-thirds vote of all the members of both branches of the council is necessary to alter the estimates of the comptroller. The estimates for Washington and the District of Columbia are revised by the Secretary of the Treasury.

The most noted example of executive responsibility for the budget was afforded by New York city from

1873 to 1897. The budget was made by the board of estimate and apportionment, consisting of the leading executive officers. The council had the privilege of considering the "provisional estimate" and making changes in it. But as the board of estimate and apportionment might overrule any such change in passing the "final estimate," the council rarely made any.

While this system was in existence in New York, a board of finance was established for Albany with power to submit estimates which could be amended only by a two-thirds vote of all the members of the council. The New York plan was closely copied in Troy; there was one difference, considerable in form but slight in reality: the council had power to reduce the estimates but not to increase them, and only the mayor's veto could overrule the action of the council. The Troy modification has now been adopted in the Greater New York charter, and in the law for cities of the second class[1] in New York state. In these three cases the board is composed of five ex officio members, though with slight differences in the officers selected:

BOARD OF ESTIMATE AND APPORTIONMENT.

New York.[2]	*Troy.*	*2nd class cities, N. Y.*
Mayor.	Mayor.	Mayor.
Comptroller.	Comptroller.	Comptroller.
Pres. of dep't of taxes and asssessments.	City engineer.	City engineer.
Pres. of council.	Pres. of council.	Pres. of council.
Corporation counsel.	Chamberlain.	Corporation counsel.

[1] These are Albany, Troy, Rochester, and Syracuse. Utica will soon enter this class.

[2] An amendment made by the legislature in 1901 changes the membership of the New York board:

"The mayor, comptroller, president of the board of aldermen, and the presidents of the boroughs of Manhattan, Brooklyn, The Bronx, Queens and Richmond shall constitute the board of estimate and apportionment. . . . The mayor, comptroller and the president of the

This New York idea of creating an executive board to make the budget has been imitated extensively. The new charter of Baltimore copies it almost exactly; even the officers composing the board are the same as in cities of the second class in New York. Something of a similar kind, though without such extensive powers, now exists in New Haven, Detroit, Saginaw, Superior, Minneapolis, Sacramento and several Ohio cities. New Haven has a board of finance with the same power over the budget as that of Albany; but it is composed of the mayor, the controller, one alderman, one councilman, and three citizens appointed by the mayor one of whom retires each year. In Detroit the budget goes from the council to a numerous board of estimates established in 1895, which has final power to reduce or strike out items. In Dayton, the budget is made by the board of city affairs, composed of four citizens, one retiring each year; the council can only reduce items. A similar board was established in Cincinnati in 1898. In Minneapolis, an ex officio board of tax-levy fixes the maximum rate to be levied. In Columbus and Toledo, a board of tax commissioners must approve the tax-levy before it goes into effect. In Holyoke and Sacramento, the budget is prepared by an ex officio board of estimate; in Superior by an ex officio board of review; but in these

board of aldermen shall each be entitled to cast three votes; the presidents of the boroughs of Manhattan and Brooklyn shall each be entitled to cast two votes; aud the presidents of the boroughs of The Bronx, Queens and Richmond shall each be entitled to cast one vote. . . . "—Charter, sec. 226. The new provisions go into effect January 1, 1902. Dr. Fairlie calls the writer's attention to the fact that the mayor and his appointees under the old arrangement constitute a majority of the board, while under the new arrangement the elective members will constitute a majority; also that the new arrangement will bring into the board some members in closer touch with the spending departments.

three cities the council has full power to make amendments. In Cleveland, the budget was a few years ago prepared by the board of control, which was composed of the mayor and the heads of departments; now it is prepared by the auditor, working in connection with the committee of the council on appropriations. It should be remembered that whenever the comptroller is a member of any of these boards, the detail work of making the estimates is likely to devolve mostly upon him. In New Jersey a law[1] passed in 1889 required that every city in the state should have a board of finance composed of the president of the council and four persons appointed by the mayor, the four to be not all of the same party, to serve for two years, one-half retiring each year, and to receive salaries of $500 each; the letter of the law appeared to give this board large powers over the finances, but Jersey City is the only city in which its prominence is notable. Another step in the same direction is to give some of the executive officers seats in the council. In cities of the second class in Kentucky, the auditor has a seat and a vote in the council. In New Orleans, several of the executive officers, including the comptroller and the treasurer, have seats in the council and may take part in its debates; it is said, however, that they have never taken part in the meetings, though the charter has accorded them the privilege since 1882.

6. THE BUDGET ORDINANCE.

The drafting of the budget ordinance is done very often, though not in the majority of cases, by the city's official legal adviser, styled variously as the city attorney, the city solicitor, and the corporation counsel.

[1] General statutes, 1895, p. 733.

When the comptroller or the mayor revise the estimates, they sometimes draft the ordinance at the same time. When the making of the budget is exclusively in the hands of the council, the chairman of the proper committee most often prepares the draft.

After what has been said it is evident that the procedure in the council itself is of small importance, although it is there that the entire responsibility of the budget nominally rests. The various readings—by title on introduction, after the report of the committee, and before the final vote—the higgling between the two branches of a bi-cameral council, the calling of the yeas and nays, the publication in the newspapers, etc., are things that need not be treated here. A single illustration will be given of what the council does with a budget. In 1893 the city council of Chicago passed the appropriation ordinance on March 27. After a large amount of other business had been disposed of, covering thirty pages in the printed proceedings, the council took up the special order for the evening, the consideration for the first time of the report of the committee on finance on the appropriations for 1893. Twenty-one proposed changes were defeated; four items were reduced; three were increased; one item was divided into four. Before that session adjourned the budget carrying $11,810,969 in over five hundred items had been enacted.[1]

The cities where the veto is withheld from the mayor are few. Buffalo, Charleston, Dayton, Detroit, Norfolk, San Francisco, Worcester, and Wheeling are the only ones in the list, that the author has found. All of the newer charters make the mayor's veto really effective as regards appropriations, by allowing him to veto items while approving a measure as a whole. The cities

[1] Council Proceedings, 1892–3, 2718–40.

where some other than a two-thirds vote is required to pass a vetoed budget are the following: Nashville, a majority; Allegheny, Philadelphia, Pittsburg, and Providence, a three-fifths vote; Baltimore, Los Angeles, Vicksburg, and Superior, a three-fourths vote; Albany, under the old charter, Cincinnati, and Dubuque, a four-fifths vote; New York, a five-sixths vote.

7. COMPLETENESS AND UNITY OF THE BUDGET.

The number of items in the budgets varies from thirteen in the tax-levy of Youngstown, to 2071 in the appropriations of New York. For some of the larger cities the numbers in recent budgets were as follows:

Atlanta	113	New Orleans	307
Baltimore	288	Oakland	464
Boston	72	Providence	77
Chicago	536	Richmond	99
Cleveland	170	St. Paul	167
Indianapolis	136	San Francisco	130

In the smaller cities the items rarely exceed 100, and often are as few as 20.

The budget for New York city for 1896, as finally fixed by the Board of Estimate and Apportionment, contained 752 items. Appropriations for the debt included 26 items for principal, and 161 for interest. Rent of buildings and rooms used by the city took 40 items. But the appropriations were even more minute than these figures indicate. Many single items were complex and stated how the sums were to be distributed, thus:

Ten justices at $11,500 each per annum	$ 115,000
For salaries of 180 roundsmen of police at $1,500 each, not exceeding	264,000
For the salaries of 3537 patrolmen of police at $1,150, $1,250, $1,300, and $1,400 each, not exceeding	4,596,652
Five laborers, at $2 per day each	3,660

The budget of Greater New York for 1901 contains

774 items for interest on debt, and 221 for principal; also 1076 other items, making a total of 2071. Many of these items are complex, as indicated above.

Does the city budget bring into one balance sheet all the proposed financial operations of the city for the budget period? This question must be answered all but universally in the negative. The writer has found only two examples of a complete budget—in Lynn and Cambridge. In February, 1897, the joint standing committee on finance of the Lynn council, submitted the plan of a budget, which is here given in condensed form:

RECEIPTS.

Taxes, for city (at maximum rate, $12 per $1,000). . . .	$ 509,520 38
Taxes, for debt charges.	
Interest, ...	100,000 00
Sinking funds.	116,500 00
Receipts in departments,	
(11 items.)	106,580 26
Loans,	
(3 items).	60,000 00
Total.	$ 980,600 64

Then follow the appropriations in fifty-nine items which likewise aggregate $980,600.64. This budget clearly is intended to embrace all the incomes and disbursements of the city for a year, except temporary loans to be repaid before the year expires. The Cambridge budget is similar to this.

In Boston this completeness has been attained by making two separate budgets. There a clear line of separation has long been drawn between ordinary expenses and permanent improvements. The latter are met by loans, the former out of revenue. The budget has always included only the ordinary expenses and revenue. Up to 1897 the permanent improvements and the loans to meet them were made without any system

whatever; but in that year Mayor Quincy inaugurated the practice of making a "general loan order," or budget of extraordinary expenses. The mayor called on the departments for estimates, the same as for the ordinary appropriations; these he transmitted to the council without change or recommendations of his own. The loan order was then prepared by the committee on finance, in consultation with the mayor and the heads of departments. This procedure, however, has not been continued. The Michigan act of 1873[1] relating to cities apparently aimed to secure the making of a complete budget. It required the annual appropriation bill to appropriate all money to be received by the city, including special assessments and loans, to cover all of the expenses. But this aim has not been fulfilled. The same could be said of municipal legislation in other states.

An informal forecast of the amount the city will borrow and what shall be done with it is of course usually made, certainly where the city's debt is near the limit. But careful search and inquiry have failed to reveal other cases where a formal budget is passed to include all expenditure from loans.

The question is next on the revenue which arises from other sources than taxes; are the incidental receipts of the departments, the license fees, the interest on bank deposits, etc., included in the budget or not? The nature of city budgets, as already presented, doubtless suggests a large part of the answer. In the great majority of cities, the budget consists of the tax-levy, with the estimates that precede it or the apportionment that follows it. The budget has its origin in the tax-

[1] Compiled laws, 1897. Sections 3298–3313 contain the provisions relating to the budget.

levy. Therefore those cities that have developed the budget but little from its original character do not include in it the miscellaneous revenue; it is left in the departments where it arises, or devoted to specific purposes; it sometimes does not appear at all on the books of the treasurer, the departments being permitted to spend their miscellaneous receipts without accounting to him for them. Where the budget is most highly developed, there such revenue is included and is formally appropriated along with the revenue from taxes. Many cities, of which Chicago is a good example, are in a half-way stage. They estimate the miscellaneous revenue, but leave it in the departments where it arises, subtracting it from the estimated expenditures of those departments before making the tax-levy for them. The distinction between throwing the revenues all into one sum to be appropriated and using them to reduce certain estimated expenses for which appropriations are to be made may seem fanciful. But the latter method prevents the budget from becoming a conspectus of all the proposed financial operations; it gives only a partial budget, and so complicates the financial system; besides, it facilitates certain abuses.

Among the cities where all revenue of all kinds is estimated and appropriated as part of the resources of the treasury are Lynn, Boston, Cambridge, Manchester, Rockford, New Orleans, and Augusta. Though not all of the remaining cities have been investigated on this point, a majority of them probably estimate the miscellaneous receipts, but use them only to reduce the regular appropriation without bringing them into the budget.

8. ACCURACY OF THE ESTIMATES OF REVENUE.

The budget consists of a balanced statement of esti-

mated and authorized receipts and expenditures. How nearly does the forecast correspond with the outcome? Here the cities are in about the same chaotic condition as the federal government; there has been little serious effort to make them correspond. Some cities have gone on for years overestimating the revenue, allowing expenses to break entirely loose from the estimates, and ending each fiscal year with a deficit.

Expenditures may not exceed the budget estimate unless permitted to do so; it is possible to *make* them conform. But that sometimes would cripple the service; and therefore nearly all cities have provision for allowing the estimates for expenditure to be exceeded; the modes of allowing this will form the subject of the next section. Revenue, on the other hand, can not be forced to the square and the rule. A given tax-levy or a certain scale of fees will produce sometimes more and sometimes less. It is from overestimating receipts that deficits more often arise.

Unfortunately the published annual reports give very incomplete data regarding the estimates of revenue. They include the tax-levy or the budget in barely a majority of cases; and the cities that publish the estimates of miscellaneous revenue are fewer still; Boston, Providence, Portland (Me.), Philadelphia, Baltimore, and Richmond, publish itemized statements of estimated and actual receipts in parallel columns.

The degree of accuracy attained in the forecasts of miscellaneous revenue is shown in the following tables, stated in thousands of dollars:

Place.	*Year.*	*Estimate.* (*000 omitted.*)	*Actual.* (*000 omitted.*)	*Error %*
Allegheny,	1896–7	$ 534	$ 598	—10.7
Boston,	1893–4	1,422	1,517	—6.
	1894–5	1,410	1,517	—7.
	1895–6	1,394	1,638	—1.6
	1896–7	1,702	1,748	—2.8
	1897–8	1,862	2,019	—7.8
Portland, Me.,	1896–7	114	119	—2.9
Providence,	1892–3	570	658	—15.
	1893–4	757	795	—4.8
	1894–5	769	808	—4.7
	1895–6	779	775	+0.4
	1896–7	776	799	—2.8
Philadelphia,	1893	10,432	12,154	—14.
	1894	10,434	11,412	—8.6
	1895	10,754	10,566	+1.8
	1896	10,852	10,770	+.76
	1897	11,345	11,927	—5.9
	1898	11,359	11,970	—5.1
Richmond.	1892	483	493	—2.0
	1893	492	458	+7.3
	1894	458	420	+9.2
	1895	431	435	—0.7
	1896	444	444	—0.07
	1897	465	478	—2.7

But miscellaneous revenue is only a small part of a city's income. The chief reliance is on the general property tax, and it is here that miscalculations are the most serious. It is here also that they are most likely to occur because of the way in which the tax is levied. The assessment roll is first prepared; then a tax of a certain per cent. or a certain number of dollars per thousand will, in theory, yield a perfectly definite sum; or if a certain sum is to be raised, it is only necessary to fix the rate at a certain per cent. to get it. But in practice the receipts usually fall short of this theoretical sum. A few assessments are found to be erroneous and

must be reduced or vacated; parties assessed for personal property remove or become bankrupt; others delay for various reasons and await collection by force; imperfection in the collecting system causes loss; litigation may hold back taxes for years. Incautious and inexperienced officials, especially in a large body like the council, either neglect these disturbing factors, or do not make sufficient allowance for them. It is one of the worst features of the budgetary system in many cities that there is no definite way by which these allowances are made. The tax-levy names certain sums; these sums stand through the year as the only limit to expenditures that has been fixed by authority. Yet as estimates of revenue such sums are erroneous from the start; the revenue rarely exceeds but nearly always falls short; and there is no adequate means to give warning of the deception. Add to this the custom, harmless in itself, of anticipating the collection of taxes by temporary loans, and we have a system that could scarcely be better designed to cause deficits. Buffalo gives a good illustration. The charter directs that "as soon after the adoption of any estimate as shall be practicable, the comptroller shall apportion said tax upon the taxable property within the city, as set down in the assessment rolls of the year filed with him."[1] There is no evidence that the city government does not expect every dollar so apportioned to come into the treasury. There is an appropriation of $5000 for refunding erroneous taxes, but that is clearly not intended to cover a deficiency in the city treasury due to a shortage in the collections. These figures show how the system works:

[1] § 75. The budget in New York is known as the "estimate."

BUFFALO: INCOME FROM TAXATION.[1]

Year.	*Estimated.*	*Received.*
1894–5	$3,701,704	$3,700,680
1895–6	3,791,023	3,705,224
1896–7	3,774,297	3,611,675
1897–8	3,675,559	3,545,272
1898–9	4,601,021	4,514,572
1899–1900	4,485,695	4,512,908
1900–1901	4,466,905	4,135,427

The result is that Buffalo has a floating debt fed by an annual deficit.

In a few cities something is done to place the estimate of receipts from taxes on a more solid basis. For over thirty years New York city has added to the amount to be raised by taxes a sum to cover deficiencies.[2] Allegheny subtracts twenty per cent. from the tax-levy and appropriates the balance. In Baltimore the ways and means committee endeavors to make an estimate of the actual receipts from all sources. It estimated that seventy-three per cent. of the tax-levy for 1896 would be received during that year; the actual receipts were 70.4 %. Receipts from taxes in arrears fell still more

[1] Comptroller's Reports, about p. 20 in each. The close correspondence between estimated and actual receipts in 1894–5 was doubtless due to heavy collection of arrears after the panic of 1893. See p. 12, Report of 1895. The excess of receipts the last year is unexplained. The actual shortage, however, is not as great as the above figures would seem to show. Some of the uncollected taxes of each year are collected in subsequent years, when they appear in the accounts as income from miscellaneous sources. The comptroller informs the writer that the actual shortage of receipts from taxes during the last seven years has ranged between $5,000 and $18,000, so that the floating debt accumulated on that account during seven years amounts to only about $80,000.

[2] "It shall be the duty of the board of aldermen to include, in any and every ordinance or resolution passed by them, imposing and levying taxes for any purpose or purposes authorized by law, such sum, in addition to the aggregate amount required for such purposes, as they shall deem necessary, not exceeding three per cent. of said aggregate amount, to provide for deficiencies in the actual product of the amount imposed and levied therefor." Greater New York Charter, sec. 248. See Durand, 110, 200.

short of the estimate.[3] Louisville is permitted by law to expend or contract to expend only ninety-five per cent. of the tax-levy in advance of its actual collection. In Philadelphia the controller estimates the tax-levy in accordance with this rigid rule: "The amount of tax moneys collectible during the year for which such tax shall have been levied, shall be ascertained by deducting from the gross amount yielded by said rate, the average of such proportion of the annual tax levy for each of the five years immediately preceding, as shall have remained uncollected at the end of each of the said years."

A few examples of the estimates of taxes will now be given:

City.	*Year.*	*Estimated.* (*000 omitted.*)	*Actual.* (*000 omitted.*)	*Error %*
Boston	1893–4	$12,548	$12,587	—.3
	1894–5	12,588	12,860	—2.2
	1895–6	12,942	12,946	—.03
	1896–7	13,353	13,406	—.4
	1897–8	13,852	14,052	—1.5
Portland, Me.	1896–7	865	776	+11.5
Providence	1895–6	2,618	2,755	—4.9
	1896–7	2,751	2,846	—3.4
New York	1891	33,193	32,862	+1.0
	1892	33,726	33,233	+1.5
	1893	35,023	33,527	+4.5
	1894	35,064	34,159	+2.7
	1895	37,577	36,710	+2.4
	1896	43,997	40,888	+7.6
Philadelphia	1893	14,342	13,595	+5.5
	1894	13,985	14,078	—1.4
	1895	14,216	14,573	—2.5
	1896	14,633	14,656	—.15
	1897	14,949	15,281	—2.2
	1898	15,313	15,677	—2.3
Allegheny	1896–7	945	916	+3.1
Richmond	1892	850	889	—4.3
	1893	880	833	+5.6
	1894	880	879	+.02
	1895	890	851	+4.5
	1896	856	913	—6.2
	1897	887	967	—8.2
Baltimore	1896	5,940	5,707	+4.0

[3] Report of the Comptroller for 1896, p. 12.

It is interesting to note the effect of the panic of 1893 on the receipts, for that year. In every case the actual receipts as compared with the estimates are unusually low. The addition for deficiencies in New York was 1.7 % in 1891, 2.5 % in 1892 and 1893, and 2.2 % in 1895. In no case was it enough to prevent a shortage and in no case was it as much as the charter allows. The Boston estimates are remarkable for their accuracy. Not only is the absolute error very small, but it is also always on the conservative side. In 1900 the Baltimore board of estimates estimated that eighty-five per cent. of the tax-levy would be received during that year; the actual receipts were eighty-three per cent., but receipts from taxes in arrears exceeded the estimate by $60,000.

9. TIME OF MAKING THE BUDGET.

The accuracy of the forecasts depends much on how long they have to be made in advance of the time to which they apply, and in this respect there is great divergence. Washington is united with the federal system and so makes the estimates nine months before the fiscal year begins. Detroit, Ft. Wayne and Minneapolis make the estimates four months in advance and pass the budget three months in advance. Nearly as early are Buffalo, La Crosse, Norfolk and Tacoma. New York cities all complete the budget before the fiscal year begins. So do New Haven, Providence, Savannah, New Orleans, and Pennsylvania cities except Pittsburg and Scranton. The two last named, and all the other cities, as far as determined, pass the budget after the fiscal year begins. In a majority of them the estimates are made within the first month and the budget is passed within two months. Cincinnati, Evansville, Louisville, Newark, Oakland and Wheeling make the estimates for the year two or three months after it begins; while

Boston, Cambridge, Chelsea, Chicago, San Francisco and Worcester are often as late in making the appropriations. Latest of all come Holyoke, Richmond, Wheeling, Louisville, and Newark; the last named makes the tax-levy budget six months after the year begins. Only three cities are found—Boston, Pittsburg and St. Paul—that makes the estimates before the beginning of the year and the budget after it.

The proportion of cities that do this important work of making the budget long before or long after the fiscal year begins is surprisingly large. It is probably due mostly to the mere crudity of budgetary procedure. The fancy for certain dates for the beginning of the fiscal year may have something to do with it. January 1, the favorite date, is on the average no farther from the time of budget making than the average of other dates; but the dates from July to December are decidedly distant, while those from February to May are the nearest. One reason for this doubtless is that making the assessment of property is out-door work and is not often required in winter, but usually in the spring and early summer. So the tax-levy also tends to come near that time. Other reasons have already been given why the budget should be made in the spring. With the necessary connection between the time of making the budget and the beginning of the fiscal year, the former should govern and the latter should be adapted to it. All that can be said in favor of beginning the fiscal year on January 1, is that the calender year begins then and private business accounts are generally balanced then—quite superficial reasons.

During the time at the beginning of the year when, in many cities, there is no budget in force, the general practice is to pay the regular salaries and keep up all necessary work, but to engage in no new or occasional

work. Chicago passes a temporary ordinance allowing 75 % of the fixed salaries to be paid ; but all other neccessary work is carried on absolutely without money. Richmond allows full pay to regular employees by an ordinance passed in December, but leaves all other claims unsettled. Massachusetts exhibits a variety of arrangements on this point, as the cities all make their budgets after the fiscal year begins and they are all under special charters so that variety is encouraged. Salem passes a provisional budget of twenty items that will run the departments three months if necessary. The Boston charter allows the departments to spend not over one-third of their appropriations for the previous year before the new appropriations are made. Holyoke has the same arrangement. Worcester permits one-fourth of the previous appropriations to be spent; Lowell, one-sixth during the first two months. Cambridge carries this method of proportions to its logical conclusion and allows one-twelfth of the previous appropriations to be spent during each month of the new year until the budget is completed.[1] This plan is also followed in New Jersey.

Under proper regulations, there is no looseness in-

[1] In connection with this Cambridge has a blank form used for drafting the ordinance. The body of it is as follows:

ORDERED:

That for the purpose of meeting the current expenses of the several city departments for maintenance during the month of ______________, 1898, there be appropriated under each head of appropriation, from the moneys remaining in the City Treasury November 30, 1898, together with the revenue received to the first day of ______________, 1899, a sum equal to one-twelfth of the total amount expended for said maintenance under each head of appropriation during the financial year ending November 30, 1898, and also such further sums as may be necessary to provide for payments for construction work under heretofore authorized contracts. The sums so appropriated to be made a part of the annual appropriations for each department when the same shall be made.

volved in running a few weeks into the new year without a budget, and it has several advantages. It allows the estimates to be made that much nearer to the conditions they are intended to meet. It permits of using the complete accounts of the preceding year as a basis of the estimates. In several cases it would remedy the defect before noticed of having the budget made by one administration and executed by another. It would avoid the haste which is sometimes necessary to get the budget through before the close of the old year. The mayor of Nashville complained in 1896 that passing the budget just before the close of the old year virtually deprived him of a veto on it, as to do so would suspend all the operations of the city.[1]

10. CORRECTING THE BUDGET.

It is not in human foresight to provide for all the needs of a city a year in advance. Local financiering, as well as national, has to meet the unexpected.[2] The fire department loses an engine at a fire; it must be replaced immediately, though the budget did not provide for it. A snow storm, the like of which comes only once a decade, imposes such a task on the street cleaning department that the appropriation ample for ordinary years is not now sufficient. A violent rain may so damage the streets as to make extensive repairs necessary. Similar causes of large unforeseen expense are floods, plagues, riots, fires, accidents to valuable works, and judgments rendered by the courts.[3] In such cases

[1] Message in Annual reports, for 1896, p. 4.

[2] For the opposite opinion see Adams, Public debts, p. 307.

[3] The claims which give rise to these judgments originate in personal damage due to defective sidewalks or streets, the condemnation of real estate for municipal purposes, contracts, etc. Over these expenditures the financial officers of the city have no direct control, and only

the Procrustean method is inadmissible, and probably no city has always followed it.

A few instances are found where the budget is subject to a regular revision in the course of the year. Troy under its charter made a preliminary budget just before the beginning of the fiscal year; this controlled expenditures for six months; then the final estimates were made on which the tax-levy was ordered. Atlanta passes the regular budget in January but revisions based on estimates from the departments are made in June and October. New Orleans and Cincinnati pass semi-annual appropriations in addition to the annual tax-levy budget. St. Louis passes a regular appropriation bill towards the end of the fiscal year to cover deficiencies. Louisville passes a final appropriation ordinance in the last month of the fiscal year, which supersedes the former one; this disposes of all surpluses and deficiencies and makes it possible to close the year with clean accounts. In Cleveland the council may amend the annual appropriation ordinance three times in the year—on the first Mondays in May, September and December. This looks like a very regular and orderly procedure, but it is a question if bad results might not flow from it. Anything that lessens the importance of the original budget is an evil, and a formal revision to which all might look forward would certainly do that. Then at the end of the year it would

more or less indirect control. In the great cities, notably, New York, Philadelphia, and Chicago, these expenditures run up into the millions. In New York in recent years the corporation counsel has confessed judgment in suits to such an extent as to give rise to serious inquiries and cause a controversy with the comptroller; the result was the passage of two laws at the suggestion of the comptroller requiring the corporation counsel to obtain the approval of the comptroller or of the board of estimate and apportionment before instituting condemnation proceedings or confessing judgment. See Annals, xvi, 148–9.

be less apparent which departments had kept within the appropriations and which had overrun.

The easiest and simplest way to let a department exceed its appropriation is to allow it to overdraw and say nothing about it. This of course requires the consent of the authorities who allow claims; they, however, must be sticklers for forms or be themselves under severe compulsion not to allow an occasional overdraft, especially as there may be no immediate harm in it; the purpose is a worthy one and there is plenty of idle money in the treasury. But it involves all the remote consequences of any official disregard of a principle. Frequently severe penalties are attached, such as making the guilty officials personally liable for the amount of the overdraft. In Dallas, Elizabeth, Tacoma, Sioux Falls, Manchester, and several cities in Ohio and Massachusetts overdrafts were admitted to be no more or less frequent, though contrary to law. Overdrafts are least used in the cities where the council orders payments, because the council is able to provide a regular means of covering the deficit; though they are authorized by the council in a way not strictly legal in Burlington, Lowell, Savannah and Mobile. In Superior and Milwaukee the council allows them by a three-fourths vote. The Buffalo charter allows overdrafts in the following terms:

"The expenditures for each department, office or other purpose during the fiscal year, shall be kept within the estimate made for it, except that in cases where the mayor, comptroller and treasurer shall certify in writing that a greater amount than provided for in the estimates is necessary in any department of the city, the expenditures in any such department may be increased by the amount so certified by a two-thirds vote

of the members elected to each board composing the common council, which vote shall be taken by calling the yeas and nays, and shall be entered upon the journals of the common council."[1]

The most prevalent means of correcting the budget is by transferring money from one appropriation to another. This avoids the irregularity of the overdraft, and at the same time uses any actual surplus in the treasury to fill the deficit in certain departments. The general rule in New York, Wisconsin, and Iowa is to prohibit transfers altogether; Ohio, Michigan and Minnesota prohibit them for some cities. Boston allows transfers on the written recommendation of the mayor approved by a two-thirds vote of the council; but the budget order always provides for transfers by the auditor and mayor between the items of any department and, during the last two months of the year, between departments. Richmond likewise requires a two-thirds vote. In Fort Wayne the council may make transfers on the recommendation of the comptroller. The practice is often carried to great excess; at Saginaw for example, out of forty-eight funds, transfers were made in 1897–8 from twenty-seven funds, and transfers to eighteen funds; eight funds both received and gave transfers. The amount transferred was $56,454.78 out of a total expenditure of $712,712.80.

Certain funds are nearly always exempt from transfers, such as money realized from the sale of bonds, the receipts of productive enterprises like waterworks, and money raised for schools and for departments under state commissions.

No vital objection can be made to transfers if they are kept within narrow limits. The best way to limit

[1] Revised charter, 1896, § 73.

them is probably to require a recommendation from the comptroller or the mayor or both, and a two-thirds or three-fourths vote in the council. But transfers do most emphatically complicate the accounts and help to render the published report a mystery to the uninitiated.

By all odds the most direct and the least confusing mode of giving elasticity to the budget is to leave an adequate margin of revenue which can be used for exigencies in any department. This mode is adopted in Boston. The appropriation bill provides for a "reserved fund" amounting to from one-fourth to one-half of one per cent. of the total appropriation; "and the City Auditor is hereby authorized to transfer from this fund for current expenses only, as the mayor may direct, with the approval of the Committee on Finance." The law governing the city of Cincinnati requires that in the semi-annual budget $50,000 shall be set aside as a contingent fund to meet deficiencies; this can be used only by a two-thirds vote of the council and with the approval of the mayor. In Minneapolis twenty votes out of twenty-six are necessary to make an appropriation from the contingent fund.

One small disadvantage of a reserved fund like this is that it requires the city to keep on hand a somewhat larger cash balance than when any surpluses that exist can be made use of by transfers or by the overdrafts of other departments. But the serious difficulties with such a fund are the political ones. When the makers of the budget are struggling to squeeze the estimates of the departments within the limits of the city's revenue, they must have great self-control to leave a dollar of of possible revenue unappropriated; a city council that will do it voluntarily is rare indeed. On the other hand when the charter requires that certain miscellaneous

revenues shall go into such a reserved fund, the fund may become needlessly large and offer an irresistible temptation to spoilation. Newark affords a curious illustration of this. The contingent fund is fed by the license fees and a few other sources of revenue. It is very large, amounting to nearly ten per cent. of the entire income of the city. When the council passes the tax ordinance, it also passes a "supplementary" resolution distributing the greater part of this fund to the various departments.[1] Then even when the budget-makers are able to leave a small sum unappropriated, the officers who control expenditures will have no peace until it is gone; as long as it stands on the accounts unused it invites onslaughts by advocates of innumerable projects—absurd, visionary, partisan, or mercenary, and some really meritorious—but all beyond the city's ability to pay for. Most officers who have had experience with such matters are unwilling to stand the pressure and prefer to have no reserved fund, notwithstanding the incontrovertible reasons for having one. The writer has found that nearly every other official who performs the part of "watch-dog of the treasury" has some secret or roundabout means for accomplishing the purpose of a reserved fund, such as to intentionally underestimate the miscellaneous revenues or overestimate some item

[1] In 1899 this resolution read as follows:—

"Whereas, The greater part of the tax ordinance of 1899 is appropriated by law for purposes beyond the discretion of Common Council and are insufficient to supply the demands of the various city departments even when administered with the strictest economy, therefore be it

"Resolved, That the following sums be transferred from the contingent fund to the respective accounts named below, upon the order of the committee on finance, as rapidly as said fund shall become available, which sums shall be supplementary to those contained in the tax ordinance of 1899:"

Then follow ten items aggregating $290,000.

of expenditure, or keep still about some surplus which he knows will not be needed but which is ostensibly pledged. He can then exhibit the accounts to those clamoring for money and challenge them to show where the money can come from, while he knows all the time where it might come from. Here also may be a reason why some comptrollers do not wish the accounts to be too simple or easily understood; it would not then be so easy to plead poverty to the importunate alderman or department chief.

So far only additions to particular portions of the budget have been considered. Transfers cause no change in the aggregate; supplementary appropriations out of surplus resources do not cause a deficit; the chief end of the budget—to keep expenditure within the income—is attained. But a leak soon becomes a torrent, and if one department succeeds in spending more than its allowance, others will strive to do the same. It is by additions to the estimated expenditures, or by a shortage in the realized income as compared with the estimated income, that the city is made to close the fiscal year with a deficit.

There are several ways of allowing the total outgo of the year to exceed the total resources. The simplest one is to merely let the bills remain unpaid till the next fiscal year.[1] This is a trick easy to accomplish and difficult to detect while in progress. A device, formerly much used but now happily disappearing, is to issue the usual orders or warrants to the claimants but let

[1] "I also wish to call attention to the pernicious practice of Councils directing a department or official to contract bills, the payment of which is to be made from the succeeding year's revenue. This is illegal, and in the future this office will not recognize or honor any bills created in that maner."—Report of Controller, Erie Reports, 1897, p. 14.

them remain outstanding till some money comes in.[1] In 1897 Montana passed a law requiring that unpaid warrants shall draw interest from the time they are registered until they are advertised as payable, and Idaho a law requiring the levy of a special annual tax to pay the outstanding warrants.[2] This gives the claimants negotiable instruments on which they can get the cash, subject, however, to a heavy discount. The most business-like way is to issue certificates of indebtedness or make loans at the banks, such as are frequently used to anticipate the taxes during the year, and let them run over into the next year. In some of the southern and western states the law allows expenditure to be made in excess of the amount specified in the budget provided it is sanctioned by the voters at a special or general election. A law to that effect was recently passed in South Carolina.[3] But the end is

[1] San Francisco still contemplates resorting to this practice. Article IV, Chapter III, Section 6 of the new charter reads: "Every lawful demand upon the treasury, audited and allowed as in the Charter required, shall in all cases be paid upon presentation, if there be sufficient money in the treasury applicable to the payment of such demand, and on payment cancelled with a punch, cutting the word 'Cancelled' therein, and the proper entry thereof made. If, however, there be not sufficient money so applicable, then it shall be registered in a book kept for that purpose by the Treasurer. Such register shall show the special number given by the Supervisors or other authority, and also by the Auditor to each demand presented, also when presented, the date, amount, name of original. holder, and on what account allowed and against what appropriation drawn and out of what specific fund payable. All demands shall be paid in the order of their registration. Each demand upon being so registered shall be returned to the party presenting it, with the endorsement of the word 'Registered,' and dated and signed by the treasurer; but the registration of any demand shall not operate to recognize or make valid such demand if incurred contrary to any of the provisions of this Charter."

[2] N. Y. State library Bulletin, Legislation by states in 1897, marginal nos. 1154 and 1201. Mon. '97, p. 75; Ida. '97, p. 50.

[3] See N. Y. Library Bulletin, Legislation by states in 1899, marginal no. 1465. S. C. '99, ch. 35.

always the same: a floating debt is accumulated and future generations are required to pay for the folly or extravagnce or corruption of the past. A floating debt, once started, tends to grow; some unpaid bills, outstanding warrants, or certificates of indebtedness must go over into the next fiscal year anyway; they thus show the way to making the expenditures of the year exceed the revenues.

The numerous ways of correcting the budget may be conveniently thrown into the following conspectus:

I Redistributing the resources of the year.

1. Formal revision of the budget.
2. Overdrafts.
3. Transfers between funds.
4. Supplementary appropriations from a reserved fund.

II. Increasing the total beyond the resources of the year.

1. Unpaid bills.
2. Outstanding orders.
3. Temporary loans.
4. Issuing bonds.

One of the best evidences of a good financial system is the avoidance of deficits. When we learn that Providence and Cambridge never have deficits, we cannot find serious fault with the financial part of their government. On the other hand there is some radical fault when deficits not only occur but occur so frequently as to attract attention more by their absence than by their presence.[1] In Newark the inquiry whether the

[1] In December, 1897, Comptroller McCardy of St. Paul, announced that for the first time since he became comptroller, which was in 1892, the city had money enough at the close of the fiscal year to pay all demands for all departments. The Times-Herald of Chicago, con-

city ever had a deficit at the end of the year, was answered in the affirmative, with the explanation that the floating debt after two years was funded into ten-year bonds.

In Lowell temporary loans frequently go over into the next year. The excuse offered is that some of the taxes are not yet collected, though most of the other cities of Massachusetts, with the same tax laws, do not find the same expedient necessary.

tained the following, Dec. 30, 1896:—"Chicago will close the year with cash on hand. When the bookkeepers in the city hall draw a lot of red lines in their ledgers to-morrow night they will find, on adding and subtracting in the proper places that the expenditures have been smaller than the appropriations. In other words, there will be a surplus instead of a deficiency.

"This doesn't happen frequently. It has not happened more than once or twice since Clark street was an Indian trail, and that it is the case this year is due to Mayor Swift and his careful administration of municipal matters. His watchword, invented when he took his seat and repeated every day since in every department, has been a mixture of command and advice :

'Keep within your appropriation.'"

CHAPTER III.

ADMINISTRATION.

I. THE TREASURY.

When a corporation possesses any money, there must be some one to hold it.[1] This person, in the cities of the United States, is almost universally known as the treasurer. In Baltimore he is called the "register," and in New York he is called the "chamberlain"; Albany and Troy also had chamberlains under their old charters. In the development of government the treasurer is among the first officers to be provided for. The Dongan charter of 1686 provided that the council of New York should elect a "chamberlain or treasurer.[2] The town board of Chicago, at its first meeting in 1833, elected a president and treasurer.[3] In 1837, on the granting of the first charter, "the treasury was the first administrative department to be organized."[4] Philadelphia did not have a regular treasurer before 1789; either the mayor or an alderman was appointed treasurer. However, the first ordinance passed under the charter of 1789 was "for ascertaining the duty and pay of the treasurer."[5]

In early times the treasurer was appointed by the council, evidently in accordance with the disposition in the colonies to keep the purse in the hands of the representatives of the people. When the tendency to make all

[1] For an interesting example of the diffusion of this responsibility, see Mrs. Green's, Town life in the fifteenth century, i, 138.

[2] Durand, History of the finances of New York city, 15.

[3] Sparling, 22.

[4] *Ibid.*, 44.

[5] Wharton School of finance, City government of Philadelphia, 88; A. & P., Philadelphia, 13, 47, 68.

offices elective set in, the treasurer felt the full force of it; but the recent tendency to have them appointed by the mayor has not included the treasurer. He is now nearly always elected by the popular vote; the exceptions noted are Bangor, Manchester, Baltimore and several Massachusetts cities where he is appointed by the council, and Boston and New York, where he is appointed by the mayor.

The prevailing term of office of the treasurer, as of all state and local officers, is two years. In New England the cities generally retain the one-year term as they had it when their government centered in the annual town meeting; but in 1897, Boston and New Haven adopted the biennial term. The one-year term also exists in Superior. Philadelphia, Camden, and Cincinnati have a three-year term; New York,[1] Buffalo and New Orleans have a four-year term.

The treasurer is uniformly required to give bonds for the faithful performance of his duties, as is often required of other officers; but in his case the bond is very heavy on account of the large sums of money entrusted to him. The exact amount of the bond, however, seems to be largely a matter of chance or caprice, as it bears no fixed ratio, even approximate, to either the size of the city or the sums usually kept in the treasury. The following examples show how the amount of the bond ranges:

Baltimore	$ 50,000 00
Boston	150,000 00
Buffalo	200,000 00
Grand Rapids	250,000 00
New Haven	50,000 00

[1]The amended charter of 1901 reduces the term of office of the mayor, comptroller, and other important officers in New York to two years, counting from Jan. 1, 1902. The chamberlain is appointed by the mayor. Sections 94, 95, 97, 118 and 194.

New Orleans	50,000 00
New York	300,000 00
Philadelphia	100,000 00
Salt Lake City	250,000 00
San Francisco	100,000 00
Savannah	25,000 00

Formerly the bond was a personal one; that is it was made up by the friends, chiefly political, of the officers to be bonded, and their reliability had to be passed on by the council or some other officer of the city. But that method of securing the bond is inconvenient and disagreeable to all concerned, is open to great abuses, and is often found insecure. Now the bond is often provided by a surety company for a consideration, and the transaction is a purely business one all around. The business of corporate bonding is of very recent growth,[1] though there is still great room for its extension, especially in the west and south. One who is intimately associated with it,[2] estimated in 1898, that only one-tenth of the surety business was carried by corporations. Since then the amount of it has increased about one-half.

This development is having highly beneficial results. Real security is afforded where only an appearance of security existed before. But more valuable than this

[1] The leading surety companies, according to the Connecticut Insurance Report, for 1901, are the following:

Name.	Location.	Date of Incorporation.	Millions of risks in force Dec. 31, 1900.
American Bonding and Trust Co.,	Baltimore,	1895	$96.9
American Surety Co.	New York,	1884	199.5
City Trust, Safe Dep., Surety Co.,	Philadelphia,	1886	43.7
Fidelity and Dep. Co. of Maryland,	Baltimore,	1890	87.1
Lawyers' Surety Co.,	New York,	1892	48.1
U. S. Fidelity and Guaranty Co.	Baltimore,	1896	253.9*

* Includes fidelity as well as surety.

[2] Mr. Samuel H. Shriver, secretary-treasurer of the American Bonding and Trust Company.

is the improvement in methods of administration, brought about in the same way as fire insurance companies occasion improvements in protection from fires. The officers of the surety companies know the elements of risk and of safety better than legislators or city officers; they proportion the rates somewhat according to the risk and they refuse to give bond in any case unless certain conditions are complied with;[1] they thus offer a definite pecuniary inducement for the introduction of the best methods of handling city funds.

The most important of these devices to secure safety of the city funds is the requirement that all money received be promptly deposited in banks and that payments be made by checks. This, when combined with a proper accounting system, renders it impossible for the treasurer to steal outright any considerable sum without the aid of the accounting officers or of the bank officials. In Grand Rapids, for example, the council selects a bank in the city to serve as a depository of the city funds. The bank gives a bond for $500,000. It keeps its account with the city in books provided by the city and open to the inspection of the treasurer, the comptroller,

[1] The United States Fidelity and Guaranty Company names the following conditions for bonding a treasurer:

1. That he will deposit all funds in depositories.

2. Keep on hand in cash only sufficient funds to meet the demands upon the office.

3. All moneys to be paid out on warrants issued by a duly authorized official or officials.

4. Money to be deposited daily in his name as treasurer.

5. Money to be drawn from bank only upon check signed by treasurer and countersigned by another duly authorized official.

6. Securities and other collateral to be deposited in bank and only to be withdrawn by treasurer, accompanied by one or more authorized officials.

7. Stated examinations of applicant's books to be made by other officials, and also by the representatives of this company at such times as it deems proper.

the city attorney, or any member of the council, It must also report monthly to the council stating the amount of money on deposit. The treasurer must deposit daily all money received by him. He receives duplicate receipts for deposits, filing one copy in his own office and the other with the comptroller. Money can be drawn from the depository only on a check signed by the clerk and the comptroller.[1] The surety company requires daily reports of the receipts, the payments, and the amount on deposit. For the loss of money in the depository, the treasurer and his sureties are not held responsible.

In Manchester, to take another example, the treasurer's bond is $60,000. It was formerly personal and was furnished by persons connected with the bank that held the city deposits. In 1898 corporate bonding was introduced; now all the bonds of the city officers are furnished by surety companies, and the cost is paid by the city.

This last feature—the saddling of the cost of the bond upon the city is frequently met with. The regular rate of the premium is fifty cents per $100 per annum. But keen competition between the companies has led to much cutting of rates. The average rate realized on the surety risks in 1900, as given by the Connecticut Insurance Report, was a trifle under forty cents.

It is not usual to require bonds of banks that hold city deposits, but the numerous losses by failure of banks during the panic of 1893 led to an extension of the practice. The extreme measure of safety seems to be taken in Duluth; there the deposits are distributed among five banks in proportion to their capital, and no

[1] Charter, title iv, secs. 10–13.

bank may receive deposits to exceed one-half the amount of its bond.

A little over half of the cities receive interest on their deposits and the proportion is on the increase. Where no interest is received, the custody of the city funds is in danger of becoming one of the political spoils. When a Manchester bank furnished the treasurer's bond, that bank had the city deposits and paid no interest on them. If the treasurer is allowed to keep the money where he pleases, the interest goes into his pocket; in Minneapolis until recently, this was the way in which the treasurer was expected to get his salary. If the council decides where the money must be deposited, it goes to banks that enjoy political favor. At one time the People's Bank in Philadelphia, which was controlled by local politicians, had on deposit from $400,000 to $900,000 of city money; the capital stock was only $150,000.[1] In 1882 an ordinance was passed requiring the distribution of the deposits among the banks of the city in proportion to their capital. The city first received interest on its deposits in 1892.[2] It now receives about $75,000 a year from this source. Sometimes the banks unite in a combination and refuse to pay any interest. As the city must deposit its money anyway, they then receive it without interest. Such was recently the situation in Minneapolis and Nashville. The best way to meet such a combination is to deposit as much of the money as possible in banks in other cities; Minneapolis, at the time of the writer's visit in 1898, kept a large deposit in Chicago, and re ceived two per cent. on it.

City treasurers in California are required by law not

[1] Johns Hopkins Studies, Fifth series, i, 58.
[2] Wharton School, City government of Philadelphia, 92.

to deposit the city funds in banks but to keep them in vaults.[1] The board of education of Superior lost some money in 1893 by the failure of banks and now requires the city treasurer, who holds the funds, to keep them in a safety-deposit box.

It is rare that money in the possession of a city treasurer is lost, and outright stealing by a treasurer is almost unknown. In 1893, Treasurer Haugan of Minneapolis was president of a bank; most of the city money was deposited in his own and one other bank, but he had loaned some city money to private parties without the knowledge of the comptroller. The banks failed and the city lost heavily. The city of Seattle had a series of difficulties with its treasurers, culminating in 1893 in the loss by Treasurer Krug of $120,000 through bank failures and private investments; a portion of this sum was collected from his bondsmen. A more recent embezzlement is that of E. S. Dreyer, treasurer of the West Park board in Chicago, for $310,000; he became insolvent and the money could not be recovered of him. These were all cases in which the treasurer merely intended to use the money temporarily for his own profit, as it was expected he would do, to pay him for his work as treasurer; the trouble arose when his private business became involved.

2. THE DEPARTMENT OF ACCOUNTS.

(*a*). *The Comptroller.*

Equally important with the treasurer in a financial system, is the officer who issues orders on the treasurer, and keeps a check on him and a control over all expenditures by a system of accounts. He is variously

[1] Act of 1883, sec. 122.

termed, as is shown by the list in the Appendix. In New England, Virginia, Iowa, Colorado, Utah, California, and Texas he is called the *auditor.* In the other states he is called the *comptroller*, in the largest cities nearly always and frequently in the middle-sized ones, though with the spelling *controller* in Pennsylvania. In the smaller cities the *clerk* performs this function; in Illinois, Kansas and the south numerous middle-sized cities have no other accounting officer than the clerk; in Minnesota and some other states the clerk is called the *recorder.* Some cities, especially in Missouri, have both comptrollers and auditors. Burlington has three auditors, but the clerk is the real head of the department. Nashville has a comptroller, but he is a subordinate official; the real head of the finance department is the recorder. The two Utah cities, Salt Lake and Ogden, are much similar to Nashville; each has a recorder and an auditor, the latter appearing to be the less important. In Ohio there is not even a tendency towards uniformity: in 1892 Dayton changed the auditor to a comptroller; in 1893 Cincinnati changed the comptroller to an auditor, and in the same year Columbus changed from auditor to director of accounts.

Comptroller and *controller*, though pronounced the same and used interchangeably, have the different derivations suggested by their spelling. If a choice between them were to be made on grounds of etymology and orthography only, it would be in favor of the latter; but *comptroller* is too firmly embedded in usage to be dislodged. The framers of the Greater New York Charter in 1897 used the simpler spelling, but the charter as amended in 1901 goes back to the more familiar *comptroller.* The law for cities of the second class in New York passed in 1898, did not attempt to make the change.

The National Municipal League, being led largely by Pennsylvanians, uses *controller* in its proposed charter.

The department of control and accounts runs back to the town clerk and thence, if the mark theory be accepted, to the vestry clerk in England.[1] In town government the selectmen, the supervisor, or the board approve claims and order the payment of money. The paper directing the treasurer to pay money is drawn and signed by the record-keeper of the town, known almost everywhere as the clerk, rarely as the recorder.[2] In most cases the clerk still survives in cities as the secretary of the council and the keeper of miscellaneous records.

The department of control is not, like the treasury, early differentiated from administration in general. The Dongan and Montgomerie charters of New York left these powers in the hands of the recorder or of the council itself, and there they remained till the office of comptroller was created in 1801. Philadelphia, as we have seen in the case of the treasurer, was late in differentiating its financial administration; the office of controller was not created till 1854, the duties remaining chiefly with the mayor till then.[3] Baltimore[4] and Chicago did not have comptrollers till 1857, St. Louis till 1877, New Orleans and New Haven till 1897, and Syracuse and Rochester till 1900. But in Massachusetts the importance of a separate department for control and accounts was early recognized. The legislature provided for an auditor in the first city charter it granted, that of Boston in 1822, and has done the same with every charter since then. In other states, however, many ex-

[1] Howard, Local constitutional history, 39.
[2] *Ibid.*, 83, 173.
[3] A. & P., Philadelphia, 65.
[4] Hollander, Financial history of Baltimore, 204.

amples still exist where the department remains undifferentiated. Such are all cities where the functions of control, audit, and accounts are performed by the clerk or recorder; such also are Sioux Falls where the auditor is merely the old fashioned clerk under a new name, and Seattle where the comptroller is the clerk of the council. In Utah in cities of less than 12,000 inhabitants the recorder is ex officio city auditor.[1] In Burlington and Charleston there is really no accounting department, orders on the treasury being drawn by the mayor.

But some of these cities feel keenly the inconvenience of their system and are striving to remedy it. The mayor of Toledo in a message sent to the council in May, 1894, gives an account of his efforts to have the legislature create the office of comptroller. The city has an auditor but his duties are purely clerical. The mayor states that the system of accounts is very loose, that the same bills are paid more than once, that officers who collect money do not turn it over to the city treasury, and that some bills are paid without any audit whatever.[2]

One of the largest cities recently struggling with a primitive system of control was Syracuse. The work was divided between the clerk, the council committee on accounts, and an expert accountant hired at the beginning of each year to check the accounts of the preceding year. In his inaugural address in 1896 the mayor spoke of "the urgent necessity of a city auditor or comptroller, who should be appointed to superintend the bookkeeping at the city hall. A competent official is urgently required, with power to make a monthly

[1] N. Y. State library Bulletin, Legislation by states in 1899, marginal no. 2933. Utah, '99, ch. 24.

[2] Annual reports, 1893.

audit, who would act as a check on departments and committees, and who would have constantly at hand an accurate statement of the situation in each department."[1] In 1898 at the beginning of his second term he alluded to the same subject again, and said that "no business house would tolerate such antiquated village methods of accounting for a day."[2] As a city of the second class in New York, Syracuse has had a comptroller since January 1, 1900.

New Jersey passed a law in 1880 allowing any city "wherein the office of comptroller does not now exist to create and establish the office."[3] All the cities of New Jersey included in this study now have comptrollers. In Michigan a law[4] permits cities of over 12,000 inhabitants to have a comptroller; in others the clerk is the head of the accounting system.

The term of office of the chief accounting officer is the same as that of the treasurer. The clerk is sometimes elected by the council and sometimes by popular vote. The auditor or comptroller is rarely chosen by the council; most often he is elected by popular vote; but in some of the larger cities he is appointed by the mayor. The National Municipal League recommends election by the council.

(*b*). *Auditing Bills.*

The first function of the department of control is to audit bills against the city. A good statement of the steps which this involves is found in the report of the Manchester auditor for 1895:[5]

[1] Proceedings of the common council for 1895, p. 740.

[2] Common council manual, 1897–98, p. 27.

[3] General statutes, 1895, vol. I, p. 570.

[4] Statutes, 1882, sec. 2425. This provision, however, may have been repealed, as it is not in the Compiled laws of 1897.

[5] Annual reports, p. 720.

"1. Is the subject matter of the bill under examination within the scope of the powers conferred by the legislature on the city government?

2. Is the bill certified by the party legally authorized to make the contract, or cause the expenditure to be made?

3. Has any appropriation been made to meet the expenditures, and is there a balance unexpended sufficient to pay the bill?

4. Are the number of articles in the bill, or the measurements either of dimensions, quantities, or weights correctly and fully stated, and is the proof of the delivery to the city of the whole amount charged sufficient?

5. Is the price charged a fair market price, or is it so largely in excess as to require the attention of the city councils to be called to the same?

6. Is the bill written in a fair, legible hand, correctly cast, and on paper of sufficient length and width to admit of its proper backing and filing?

7. If the bill is in part payment of a contract, the date and total amount of the contract, the amount already paid, the amount of the work not yet completed, and the per cent. retained, if any, should be stated in the bill.

8. Any other inquiries in matters of law and fact which affect the question of indebtedness before the auditor.

9. Approval, rejection, or suspension for fnrther information or correction as the circumstances of each case may require."

Another question might well be inserted in this list: Is the bill one that has not already been paid?

The auditor of Manchester in 1895 thus inspected

5922 bills, besides certifying the pay rolls by which the salaries of regular employees were paid. Not all auditing officers, however, have so high a conception of their duties. In cities below 75,000, such as Toledo, Oshkosh, and Duluth, auditing is often only a clerical process—requiring the bills to be in the proper form and arranging them for consideration by the council.

It may be thought that, as long as the bill has the approval of the department for which the expense was incurred, several of these questions are unnecessary or impertinent, especially the fifth. But if left to the heads of departments, the investigation of any of these points will often be unsatisfactory. The department chief does not make a business of inspecting bills, but he inspects them hastily as they are presented to him in the midst of other work; he is not an expert accountant, and overlooks errors in the computations; the old bills do not remain in his office, and he may have no means except his memory to know whether the prices are right and whether the bill has not already been paid. In all of these respects the auditor is in the most advantageous position.

In the larger cities the auditing officer is clothed with large discretionary powers. The report of the comptroller of New York for 1892[1] discusses the work of the auditing bureau of that city. The bureau employed eleven men who were charged with the inspection and examination of various works of construction, repair and maintenance as they progressed, as well as the inspection of materials and supplies delivered to the departments. In 1892, they "made nineteen thousand inspections and examinations, outside of the office, all over the city," and "reported adversely in nearly three

[1] Page 58.

thousand cases. In such cases defective works, supplies and materials were required to be made good, and compliance with the contracts or agreements was enforced before payment was made of the amounts called for by the vouchers and estimates which had been certified to the finance department by the various departments."

(c.) Control over Expenditures.

The auditor or comptroller is the person who can best perform the duty of keeping the expenditures within the limits set by the budget. To do this he must charge to its proper account, every bill allowed, and keep his books in such a way that he can tell in a moment whether or not there is money available for any bill that may be presented.

But the heads of departments sometimes incur bills in excess of their appropriations, either through ignorance or trusting that the overdraft will be allowed in some way. This involves two evils: it is an unwarranted attempt to force the hand of the government into granting a larger allowance, and it exposes innocent or venturesome claimants to vexation and perhaps loss. The remedy is to push the financial control back to the initial steps that lead to the liability—to require that every contract or requisition for supplies shall bear the certificate of the comptroller to the effect that there is a balance appropriated to this purpose sufficient to meet the expense. This device has been generally adopted in the newer charters. In 1896 Ohio passed a law that no local authority shall make contracts, obligations or appropriations unless money to meet them is in the treasury or a tax has been levied to raise it.[1]

[1] New York State library Bulletin, Legislation by states in 1896, marginal no. 472. O., '96, p. 341.

Final responsibility for this control over expenditure may be vested in the council. This is the case in three-fourths of the list cities, and probably in nearly all of the smaller cities of the country that are not mentioned in this study. St. Louis is the largest representative of this class. The twenty-one cities where the council does not have this power are all north of the Ohio and the Potomac, except Jacksonville; Chicago is the farthest west of the number except San Francisco. Massachusetts contains four—Boston, Cambridge, Lowell, and Worcester. Indiana has three—Indianapolis, Ft. Wayne, and Evansville. New York has five—New York, and the cities of the second class, though Rochester and Troy had been in the list when under the old charters. The others not yet mentioned, are Baltimore, Cincinnati, Dayton, Erie, Manchester, New Haven, Philadelphia, and Providence; in the District of Columbia, the expenditure of appropriations is vested in the commissioners.

There is frequently some compromise between the two methods of control. In Grand Rapids claims not recommended by the comptroller are allowed only by a three-fourths vote of all the members of the council. In 1896–7 nine such bills were acted on by the council; eight were not allowed and one was "referred." Chicago, Cincinnati, Erie and Jacksonville, limit executive control to the extent of requiring the approval of the council to formal contracts. Evansville and Worcester do the same with large contracts. On the other hand, Covington allows the department to make expenditures not exceeding $25, without consulting the council; Wheeling sets the limit at $100, and Cleveland at $250. Likewise the payment of regular salaries is often ex-

empted from the action of the council, as in Pittsburg, Columbus, Superior and Tacoma. Certain departments are excepted, as in Denver. The school board is most often thus favored; the commissions appointed by the governor, or otherwise independent of the rest of the city government, must also have control of the funds of their departments, or their independence is seriously impaired.

It is at once evident that the cities which have the most highly developed budgetary systems are precisely the ones that commit to the comptroller the responsibility for the execution of the budget. The same conditions which make an elaborate budget necessary also render effective control over it by the council impossible. Then the execution of a carefully prepared budget is chiefly ministerial and there is little occasion for the legislative branch to have a part in it; also,—reversing the order of cause and effect—where the council is done with the finances for a year the moment the budget is passed, there the making of the budget receives the closest attention. If the budget is only a tax-levy, of course it does not appropriate at all; the council must make the appropriations later when it approves contracts, orders purchases or work, or allows bills.

But it must not be supposed that, in the multitude of cities where bills must receive the approval of the council, the real work of auditing claims is done there. In a large city it could not possibly be done by the council or even the ordinary council committee. It goes where all detail work inevitably tends—into executive hands.

(*d*). *Check on other Departments.*

Finally the comptroller supervises the accounts of other officers who handle the city's money. He pre-

scribes their forms of account and report, receives reports from them, and inspects their books. But it is over the treasurer that he exercises the most perfect supervision. All bills against the city must receive the approval of the comptroller before being allowed, even when they are allowed in form by the council; all payrolls and warrants on the treasurer must be signed by him; as also must all checks drawn by the treasurer on the banks acting as depositories. He may keep informed of the money coming into the treasury either by countersigning all receipts given by the treasurer or by inspecting the treasurer's books, or both. In at least two cities, St. Paul and Omaha, the comptroller checks the books of the treasurer daily. Then by occasionally counting the treasurer's cash and receiving statements from the banks of the amount of city money on deposit, the comptroller has a perfect check on the treasurer. In Newark the treasurer informs the comptroller daily of the amount on deposit in the various banks.

Not all cities, however, have a perfect system like this. The most frequent imperfection is that the comptroller has no direct means of knowing how much money comes into the treasury. Sometimes entire departments, like the board of education or the police commission, are independent of the comptroller. Sometimes the treasurer or other officers are allowed to spend or receive petty cash without any check whatever. In 1897 shortages were found in the accounts of three minor officers in Cincinnati, due to the imperfect system of accounting.[1]

(*e*). *Relative Importance of the Comptroller.*

In some cities in the east and south the treasurer is

[1] Annals, x, 130.

clearly the chief financial officer; he may have the management of the debt, collect the taxes, or publish the financial report. But in the west, with the exception of Iowa, and in the cities with newer charters everywhere, he is often deprived of discretionary power, and reduced to a mere receiving and disbursing officer and an intermediary between the city and the banks. In an undeveloped financial system the treasurer occupies a position of great responsibility, requiring a man of highest integrity, with experience in keeping accounts and in handling money; while the chief accounting officer is what he is usually called, "a clerk." But as government becomes more elaborate, the accounting system develops; the treasury may be, though is not always, subordinated to it.

One indication of the importance attached to an office is the salary paid. For this purpose a table in the Appendix gives the salaries paid to the treasurers and chief accounting officers in a considerable number of cities. In the majority of cases the treasurers are the more highly paid. Thus New York pays the chamberlain $12,000 and the comptroller $10,000; Boston pays the treasurer $6000 and the auditor $5000; Buffalo and Milwaukee pay their treasurers $5000 and their comptrollers $4000. One cause of this difference is doubtless the heavy bond required of the treasurer. But it is also due in great part to the superior importance attached to the office, either real or supposed. A decided reversal of the usual rank of the two offices is shown in some of the cities with new charters, such as New Haven, New Orleans and Cincinnati.

Another index of the consequence attaching to an office in the popular mind is found in the length of tenure of the incumbents. Here again the difference is

in favor of the treasurers when only the small cities are considered. Examples of treasurers who have held office for long periods are decidedly more numerous than examples of clerks, auditors, and comptrollers. Charles A. Hills was chamberlain of Albany from 1880 to 1894, and had previously been deputy chamberlain. The treasurer of Oshkosh has just entered upon his sixteenth year of service; though a Democrat in politics, a group of influential Republicans always give him sufficient support to elect him. In large cities, on the other hand, the situation is reversed: the comptrollers surpass all other officers in length of service. The most noticeable example that has come under the writer's notice is that of James H. Dodge, auditor of Boston, who has been in the auditor's office since 1867, and as auditor since 1881. Auditor Chase of Lowell has held his office since 1874, with the exception of one year. Richard R. Storrs was deputy comptroller of New York for nearly thirty years. St. Paul kept the same comptroller from 1865 to 1891, and then another from 1892 to the present. Nashville kept the same recorder for fourteen years. The present auditor of Richmond began his service in 1893, and had served in the office as a clerk for thirteen years preceding. Other examples are found in Providence, Detroit, Cambridge, Lynn, Newark, Elgin, Oakland and San Francisco. Further research would doubtless extend the list.

Another indication of the importance of an office is the character of the men chosen to it. This is not an easy matter to pronounce on and it would be invidious to mention names. But the writer's personal acquaintance with officials confirms the rule noted above. He has met several decidedly inferior men serving as comptrollers or auditors—all in small cities, but he has

never yet seen an inferior treasurer. In the large cities, on the other hand, it is among the comptrollers that the greatest ability is found. Men like Dodge of Boston, Coler of New York, McCardy of St. Paul, and many others that might be mentioned, take high rank as administrative officers. The recent death of Comptroller Waller, of Chicago, revealed the profound respect that his acquaintances had for his integrity, his ability, and the quality of his work for the city. In this connection it is interesting to note that in Ogden the office of auditor has been held by women since 1898.

3. THE REVENUE SYSTEM.

However much the comptroller may approximate a finance minister in his connection with the budget and in his control over expenditures, he exhibits no tendency whatever to become the administrative head of the revenue system. The assessment and collection of taxes and the management of profit-yielding enterprises are as distinct from the department of control as the latter is from the management of the sewers.

Outside of New England, taxation was originally administered wholly by the county, and it still is in Ohio, Indiana, Colorado, Utah, Montana, Washington, Arkansas, and doubtless in other states. In Iowa, Minnesota, and the Dakotas the county nearly always collects the taxes, though the cities make the assessment; Dubuque and a few other special charter cities in Iowa also collect their own taxes. Michigan and Illinois have mixed systems. A law in 1898 took away from the towns within the city of Chicago the assessment of taxes and gave it to the city, though the collection is still made by the towns. Mobile and Charleston

copy the county assessment but make their own collections.

In the majority of cities there is one chief assessor, with as many assistants as are necessary. New England is partial to a board, three being the usual number; Boston and Manchester have boards of nine assessors. Boards are also found in the Middle states. Greater New York has a board of five members; cities of the second class in New York state have boards of four members. Philadelphia has a board of three.[1] Baltimore for many years had a complicated system of boards, at the head of which was the appeal tax court; under the new charter this tax court remains with enlarged powers.[2]

Three methods of selecting the assessors find about equal favor: appointment by the mayor, appointment by the council, and election by popular vote. Appointment by the mayor is the usual plan in the larger cities—Boston, New York, Baltimore, Cincinnati, Milwaukee, St. Paul, Minneapolis, and Kansas City; but election by popular vote is more frequent in the middle-sized and smaller cities—Chelsea, Cambridge, Burlington, Camden, Buffalo and cities of the second class in New York state, Richmond, Des Moines, New Orleans, and San Francisco. Election by the council is restricted chiefly to Michigan, the east, and the south. The writer has found only two cities—Jacksonville and Oakland,—in which the head of the accounting department makes the assessment.

In Michigan and the eastern states the extension of

[1] Wharton School, City government of Philadelphia, 207. This Board of revision of taxes was formerly appointed by the Court of common pleas, but the last legislature made it elective by popular vote.

[2] Hollander, Financial history of Baltimore, 254–60, 363.

the tax-levy upon the assessment roll is most often made by the assessors, as also in Nashville and Salt Lake. In Bay City, Buffalo, Jacksonville, and Troy the apportionment is made by the comptroller; in Kansas City and Sacramento by the auditor; in Dubuque, and Savannah by the treasurer; in Wheeling by the collector; in New York city by the board of aldermen.[1] In the other cities as far as determined, where the apportionment is not made by the county it is the work of the city clerk.

Where the collection of taxes is a city function, it is usually in the hands of the city treasurer. In California and the Atlantic coast states a collector is frequently employed; also in Detroit, Wheeling and Louisville. Pittsburg has a collector of delinquent taxes only. In Portland (Ore.), and Little Rock the sheriff collects the taxes.

The board of equalization and other features connected with the property tax, together with a full discussion of the working of the various systems, will best be taken up in a separate paper on taxation.

4. THE ADMINISTRATION OF DEBTS.

As the management of revenues has been presented in the preceding section merely to show its place in the system of finance administration, so now will the management of debts be treated.

The most conspicuous feature in the management of city debts is the sinking fund commission. The usual

[1] "At such annual meeting the board of aldermen must . . . estimate and set down in a fifth column, to be prepared for that purpose in the assessment-rolls, opposite to the several sums set down as the valuation of real and personal property, the respective sums, in dollars and cents, to be paid as a tax thereon, rejecting the fractions of a cent. . . . ."—Charter, sec. 910.

title is Commissioners of the Sinking Funds, but there are many variations. About fifty of the one hundred and two cities noticed in this paper are known to have such commissions, and probably a dozen more belong in the list about which information is not at hand.[1] In the majority of cases the commission is composed partly or wholly of members *ex officiis*, the treasurer, the comptroller, and the mayor being preferred in the order named. In Covington, Newport, and Portland (Me.), the presidents of the two branches of the council are included. In Boston the city auditor and the city treasurer are members of the commission and serve respectively as secretary and treasurer. In Cincinnati the city auditor is secretary of the commission but does not appear to be a member of it. In New York City the commission is composed of the "mayor, comptroller, chamberlain, president of the board of aldermen and chairman of the finance committee of the board of aldermen."

Where there is no commission, the treasurer is the person usually charged with the custody of the funds, though occasionally the clerk or the comptroller or the council itself. In such cases the investment of the fund is presumably directed by the council.

The functions of the commission sometimes include more than merely holding or investing the resources accumulated for paying debts at maturity. In Milwaukee, Louisville, Covington, Wheeling, and Jacksonville the commission negotiates the sale of bonds; it probably also manages their redemption. In nearly all Massachusetts cities and in Toledo and Milwaukee the commission estimates the amount required to be raised for payments on the principal and interest of the city debt. In Massachusetts, and perhaps elsewhere also, this esti-

[1] Atlanta established a sinking fund commission in 1899.

mate is compulsory and must be accepted by the council in making the budget.

When the negotiating of loans is not entrusted to the sinking fund commission, the chances are about even that it will be done by the treasurer, the comptroller, or a committee of the council; rarely it is done by the mayor or the clerk.

The few cases in which the commission makes the estimates of the debt charges are nearly equalled by those in which the treasurer makes the estimates and are surpassed nearly threefold by those in which the council makes the estimates, while the last are surpassed twice over by the number of comptroller's estimates.

For Washington and the District of Columbia the secretary of the treasury estimates the debt charges and the treasurer of the United States is the custodian of the sinking fund.

CHAPTER IV.

FINANCIAL RECORDS.

I. CRUDE SYSTEMS OF ACCOUNTS.

The financial accounts of cities exhibit every degree of crudity and excellence. There has been no central control and no uniformity, even in the cities of a single state. When every city is a law unto itself and the audit and control are as loose as has been noted in the previous chapter, the condition of the accounts can be better imagined than described. Before LaCrosse had its first comptroller in 1887 there were no accounts at all except a few pocket memoranda. The clerk had a good memory and relied on it. There was not even a record of the amount of bonds the city had issued. In 1895 the incoming clerk of Mobile reported as follows regarding the records left by his predecessor: "Beyond the aid of a cash book and the trial balance furnished me, I had absolutely nothing to guide me." Mayor Hopkins of Chicago said that before 1894 it was difficult to know the amount of resources and liabilities and that overdrafts could not be detected by the comptroller with facility. The mayor of Syracuse made a similar complaint in 1896. Of the accounts of New York city fifty years ago, Dr. Durand says: "While the broad outlines of the accounting system had been but little modified since a very early period, and were decidedly antiquated, each comptroller had made minor changes, especially in the extent and form of the published reports, so that it must have been well-nigh impossible for a citizen to get any definite view of the city's financial

progress from year to year."[1] The system now existing may be accurate and secure, but it certainly is not intelligible. The Fassett committee[2] considered it "impossible for anyone, either in private life or in public office, to tell what the exact business condition of any city is" in the state of New York.

The committee report just quoted charges this condition first to the chaos of laws governing the cities. But cities like Omaha which are governed under well-arranged charters of recent date are little better. The chief cause is probably the same as that which explains the imperfections in the work of audit and control—mere crudity; most cities have no *system* of accounting and no one in authority ever combined the ability and the will to make one, or perhaps ever thought of making one.

The newly recognized class of public accountants, who in some states are examined and certified public authority,[3] have already contributed to the improvement of municipal accounts. One firm[4] recently investigated the methods of accounting in Chicago and published their findings in a pamphlet. Another accountant[5] has arranged an excellent summary statement of receipts and expenses for the city of Newton, Mass. Still another[6] has published a book giving forms of accounts

[1] Page 111.

[2] N. Y. Senate documents, 1891, no. 80, pt. 5, p. 20.

[3] Four states have made provision for the certification and registration of public accountants: New York, Pennsylvania, Maryland, and California. The following are the references to the acts: New York, 1896, chapter 312; Pennsylvania, 1899, chapter 17; Maryland, 1900, chapter 719; California, 1901, chapter 213.

[4] Haskins & Sells, of New York, Chicago and London.

[5] Harvey S. Chase, of Boston, a member of the committee on uniform accounting of the National Municipal League.

[6] F. H. Macpherson, of Windsor, Ontario. His book is published by the Bookkeeper Publishing Co., Ltd., Detroit, Mich. Though in-

for municipalities, with tabular computations of various kinds.

2. THE FUNDS.

One relic of primitive financiering which persists nearly everywhere is the separation of the city money into various funds, instead of throwing all the money into one balance in the treasury. Sometimes the separation exists only on the treasurer's books; sometimes certain funds are deposited in certain banks. It is like the merchant who keeps the money to pay his help with in one box, that for rent in another and for new goods in still another. The system takes its origin in the reluctance to depend upon a budget for the proper distribution of the revenue and upon the comptroller for the faithful execution of the budget. Here is an example from Iowa: "Any city within this state may levy a tax of not more than two mills on the dollar in addition to the maximum tax now authorized by law for the purpose of commencing a general system of sewerage in such city, and the money so raised shall constitute a sewerage fund, and shall be applied to no other purpose."[1] The Ohio constitution requires that "every law imposing a tax shall state distinctly, the object of the same, to which only it shall be applied."[2]

This results in what has already been described as the tax-levy budget; the items are not appropriations to be spent, but are fictitious personalities among which the revenue must be distributed the moment it is received, and between which borrowing, lending, and transferring

tended for Canadians, it would be of great value to any one who has to plan a system of accounts for a city that uses the general property tax.

[1] McClain's Annotated code, 1888, sec. 746.

[2] Art. xii, sec. 5.

may take place. The accounts are cumbered with a great number of book-keeping items so that it requires an expert to discover the actual expenditures of departments.

3. ORDINARY AND EXTRAORDINARY.

Another well-nigh universal defect in city accounts is the failure to distinguish recurring from occasional expenditure and income. Professor Adams considers this worth considering only in industrial departments, but admits that it is there of importance.[1] Only a few cities have been discovered by the writer which make this distinction in their accounts. One of them is Cleveland. There the terms "operating expenses" and "permanent improvements" are applied to expenditures throughout all departments. Receipts are not so termed, but the distinction is maintained. In one table (see Appendix) both receipts and expenditures are classified as "ordinary" and "extraordinary." In Boston the distinction is supposed to be maintained; the charter requires that current expenses shall not be met by loans unless the mayor certifies that in his opinion the public welfare requires it. In a summary table Oakland divides expenditures into "ordinary" and "extraordinary," but does not carry the division through the detailed accounts as given in the report. The same terms are required in the cities of Georgia, Savannah excepted, but with a strange perversion of their meaning; the law says that "the term 'ordinary current expenses' shall be construed to include all current expenses excepting only expenditures for education, for

[1] Finance, 210. The writer of this paper has expressed his opinion on the importance of maintaining this distinction throughout the accounts, in his article, "Suggestions for the study of Municipal Finance," in vol. x of the Quarterly Journal of Economics.

paving or macadamizing streets, and for payment of the principal and interest of the public debt, which shall be known as 'extraordinary expenses.'"[1] The bill recommended by the Fassett committee for a uniform system of accounts for the cities of New York provided that two columns should be given to each of eleven out of the eighteen items of expenditure; one for "salaries, repairs, supplies, and all other expenses," the other for land, new construction, etc.[2]

4. CLOSING ACCOUNTS.

In closing the accounts at the end of the year, there are two principles which may be followed. In French—for they have no names in English—they are known as *compte par exercice* and *compte par gestion*.[3] The former requires that the accounts for a year be kept open after the year has expired until all expenses incurred during it have been met and all of the revenues arising from it come in. The *compte par gestion* requires that the year's accounts be closed promptly on the last day of the year, leaving the unpaid expenses and the uncollected income to appear in the next year's account. Few cities in the United States follow either principle thoroughly.

California cities have the *exercice*. Each year's money pays that year's debts. The year begins July 1, and books for the new year are opened on that day. But the books of the old year are kept open some weeks or months or years until everything is settled; no old debts or claims go into the new year's accounts. In the Oakland report for the year ending June 1, 1897, there

[1] Georgia Code of 1882, sec. 1672; Code of 1895, vol. I, sec. 720.
[2] N. Y. Senate document, 1891, no. 80, pt. 5, p. 22–47.
[3] Stourm, Le budget, chap. v; Adams, Finance, 202.

are accounts for the six preceding fiscal years; for the earliest four there are neither receipts nor payments, only balances brought forward; for the next two small amounts are both collected and expended.

The writer is informed that the accounts of the District of Columbia are kept open two years after the close of the fiscal year.

The prevailing practice, however, is to shut off the accounts of the year at or near the close. Thirteen cities are reported as keeping the books open a few days longer—sometimes a definite period fixed by charter or ordinance, as in Providence, Cleveland, and Richmond, sometimes in violation of law or as a result of mere looseness. Occasionally, as in Haverhill, efforts are made to settle all accounts of the old year as far as possible before the year closes. The Manchester auditor sends out a notice about the first of December asking that all bills be in December 20. This all evidences a disposition to secure the advantages of both the *exercice* and the *gestion*, without adhering rigidly to either.

When bills falling due at the end of the year are allowed to go into the accounts of the next year, the door is open to certain abuses; bills may be deferred into the next year intentionally for the purpose of making a good showing or of carrying over an actual deficit. This has sometimes been carried so far as to develop a large floating debt. Oshkosh collects its taxes when the fiscal year is about five months spent. The intention of the framers of the charter doubtless was that the receipts be used to defray the expenses of the current year. But by the way just indicated the city has sometimes had a floating debt sufficient, with the expense of the five months, to absorb the entire receipts of the taxes, and therefore been obliged to depend on temporary loans the

year round. New York[1] and St. Paul do not receive the taxes which are designed to cover the expenses of the fiscal year until after the year is closed; the comptroller of St. Paul justifies the practice on the ground that the certificates of indebtedness make a good investment for the people of the city.

On the other hand, Indianapolis made an appropriation of $21,578.73 in 1895 to pay bills brought over from 1894, so that the carrying over of a like sum into 1896 and following years might be avoided.

Any money remaining to the credit of an appropriation at the end of the fiscal year may or may not be left in that account for the new year. The cities are about evenly divided between these two methods. In New Jersey, Ohio, Michigan, and California, and some of the cities of Massachusetts, New York, and Wisconsin the balances are continued. In Illinois and the southern states they lapse. Generally in the largest cities—Boston, New York, Philadelphia, Chicago, St. Louis, Minneapolis, and Cleveland—the balances lapse; among the exceptions are Cincinnati and San Francisco, and Pittsburg has recently joined them. Appropriations for works which are uncompleted are continued in Chicago, Evansville, Fall River, La Crosse, and probably also in some other cities where lapsing is the rule. Those departments whose funds are not liable to transfer, usually also retain their balances at the end of the year, carrying out the idea that such funds must always be kept sacred for their intended purposes. In Manchester, for example,

[1] Up to the time of the consolidation of Greater New York, Brooklyn and New York collected their taxes about the same time each year, but Brooklyn collected for the year ahead while New York collected for the year behind; the result was that for the first year of consolidation the property tax was not levied in Brooklyn. See Annals, x, 472.

the library appropriation does not lapse, though all others do.

5. REPORTS AND INSPECTION OF ACCOUNTS.

It is the universal custom to require all officers of cities to render reports to the council, or to the mayor who in turn transmits all reports to the council. Financial officers like comptrollers, treasurers, assessors, and sinking fund commissioners make reports independent of each other; and heads of departments often include statements of receipts and expenditures in their reports. Heads of executive departments report annually. The treasurer, the auditor or comptroller, and the collector of taxes if there be one, report more frequently,—usually once a month, sometimes once in three months, rarely once a week. The charter occasionally provides that the council or the mayor may call for a report at any time.

Power to inspect the accounts and verify the reports presumably always resides in the mayor or the council or both. Many of the published reports contain a formal approval of the accounts by a committee of the council. It is of course evident that under ordinary circumstances such inspection will be prefunctory; but the possibility that it may be made searching has a wholesome effect.

Passing beyond the inspection of reports to the examination of accounts kept in each office, the writer has secured only meagre data. The simplest method of providing for this would be to have the comptroller inspect the accounts of all other officers and then let his accounts, which comprehend all the others, be in turn inspected by a committee of the council and verified by comparison with the reports sent to the council or the

mayor directly from the departments. But it has not been ascertained that any city follows just this method. In most instances as far as known, there is no inspection whatever, except when a special investigation is ordered.

The unreliability of a cursory inspection of the accounts of a city is illustrated by an incident in the history of New York under the Tweed regime. The comptroller's report for 1869 was not made public. But to quiet suspicion in the campaign of 1870 a few prominent citizens, among them John Jacob Astor, were invited to inspect the accounts in the comptroller's office. Stealing amounting to millions had been going on, but these gentlemen reported that "the financial affairs of the city under the charge of the comptroller are administered in a correct and faithful manner."[1]

Many cities depend on inspection by expert accountants employed for short periods. This is the custom in Bangor, Holyoke, Elizabeth, Duluth, Minneapolis, Newport, and Mobile, and formerly in Syracuse. It is difficult to see what foundation this custom has except an imperfect charter which prevents putting such work in the hands of a permanent officer; the efforts of Syracuse to get away from it have already been noted. In Denver the examination is made by a committee of three appointed by the district court. New York city has two commissioners of accounts appointed by the mayor at salaries of $5,000 each who make quarterly examinations of the accounts of the comptroller, chamberlain, and other officers.[2]

6. PUBLISHED REPORTS.

Under democratic government it is necessary that the

[1] Durand, 129, 130.

[2] Consolidated act of 1882, sec. 110; Greater New York charter, sec. 119.

public at large be given an opportunity to know the financial condition of the city. Since the overthrow of Tweed, the accounts of New York city have been open to the inspection of any tax-payer,[1] but this is a privilege very few have the time or the ability to avail themselves of to any advantage. Mrs. Green[2] tells how the people of the English town of four hundred years ago were called to the parish church by the tolling of a bell, to hear the mayor or treasurer present his accounts; the attendance was so large that extra seats had to be put in to accommodate the crowd. Now, however, the printed report is nearly universal. But it must be admitted that the public pay very little attention to these reports. City officers frequently reply to any suggestion for making the reports more intelligible, that nobody ever reads them anyway.

Rochester is the largest city in the United States that publishes no financial report whatever, unless it has recently begun the practice. The next largest is probably Memphis. Elizabeth publishes the proceedings of the council, and the financial reports appear there. The same was true of Syracuse before it came under the new law in 1900. Oshkosh formerly published a report, but does not do so now. Spokane publishes a statement in a newspaper. Knoxville and Vicksburg issue small folders. The writer has been unable to secure reports from Dallas, Des Moines, Paterson, Sioux Falls, Covington, Superior, and Toledo; he is informed, however, that Toledo publishes a report. Repeated requests have failed to secure reports or information of any kind from Memphis, and about seventy other cities that are not included in the list of one hundred and two; but reports

[1] Consolidated act of 1882, sec. 50.

[2] Town life in the fifteenth century, i, 138.

have been secured from New Albany, Ind., Harrisburg, Pa., Newport, Ky., and Utica, N. Y., that are not included in the list. According to this count, ninety-seven cities in the United States issue printed financial reports aside from what appears in newspapers. It is probable that a few other cities issue reports, which the writer has not been able to obtain.

Eighty-four of these reports are more or less pretentious documents designed for the information of the public. Thirty-four cities include the financial report in a volume or pamphlet with other documents; fifty-one make the financial report a document by itself. Youngstown made the financial report separate in 1896, but bound it with others in 1897. Two other cities issue volumes purporting in their titles to be financial reports, but which also contain other documents. In extent, the reports vary from the folders of Knoxville and Vicksburg, to the thousands of quarto pages printed in nonpareil issued by New York in the *City Record*, published daily by the city. Thirty-seven cities issue reports of over one hundred pages each.

In about three-fourths of the documents, the report of the comptroller or auditor is the only or the chief financial report published; sometimes a brief report by the treasurer, less often one by the clerk, is a part of the comptroller's report or is published along with it. A little over half of the cities publish the treasurer's report in some form or other, and a few, notably Albany, Baltimore, Burlington, Charleston, Savannah, and Somerville, make it the chief report. In Akron, Youngstown, Wheeling, Vicksburg, Little Rock, and Mobile, the sole financial report is that of the clerk. St. Louis includes in the annual volume the reports of the treasurer, the clerk, the comptroller, the auditor, the assessor,

and the collector, though the comptroller's report is sometimes published by itself. The report of the sinking fund commissioners is usually published. Albany makes it a separate pamphlet. The Newark financial report includes in one pamphlet reports by the comptroller, auditor, treasurer, and commissioners of the sinking fund. This is worse than useless; a comprehensive report by a single officer is preferable in every way.

On the side of subject-matter the most important part of a financial report, as far as the public is concerned, is the statement of receipts and expenditures. These are given with every degree of fullness. New York publishes in the *Record* a list of all the warrants drawn. Eleven other cities fill their reports with similar lists. Milwaukee, the largest of the eleven, devotes 316 pages to this purpose, distributing the items among the fifty-five funds. Detroit, the next largest, gives 536 pages, though a few pages are used for excellent condensed statements. The publication of such lists may be of some use, but it is so temporary that the practice of having them printed in the bound volume of the annual report cannot be justified.

The statement of receipts and expenditures serves its chief end only when it shows at a glance the amount of income and outgo, with subdivisions for the various departments. In about half of the reports there is no attempt whatever at a perspicuous arrangement. Thus the Atlanta report for 1895, the only one from that city at hand, contains the list of warrants, numbering nearly 4,000, arranged under the twenty-three departments; within each department they are in the order in which they are issued, with the date, the number of the warrant, the name of the payee, and the amount of the warrant. Besides a list of departments and the total ex-

pended by each, there is absolutely no other arrangement or information given regarding expenditures. The reports of some other cities are rendered still more unintelligible by transfers between funds and by bookkeeping items which obscure even the gross amount expended by each department.

Another frequent defect is in the failure to arrange expenditures by departments or services. There is often a fund for "salaries," or a "general fund," or a contingent fund; out of these are paid expenses that should be charged to the construction of streets, the fire department, the repair of sewers and so on. The report then shows what is spent out of each fund and not what is spent for each service, and it may be impossible to make out, from a study of the report, how much any particular work cost.

To show how crude some of the reports are, an example is selected from Camden. In 1897 the city issued a document of ninety pages, containing the message of the mayor and reports of the various departments. There was a statement of assets and liabilities by the treasurer in four pages. The clerk gave the receipts of his office, mostly license fees, in one page. The commisioners of taxation gave the assessed valuation of property by wards in one page. Some of the depatrments stated the amounts they had expended, but not all did so. There was no statement of the receipts from taxes and no summary of expenditures; it was impossible to learn from the report the total amount the city had received or spent.

On the hopeful side, it is a pleasure to notice that departments of municipal statistics have been created in New York and Boston. The Boston department has

already issued several excellent documents. Chicago also now has a bureau of statistics which began the publication of quarterly reports this year. This development indicates that the kind of financial report wanted is not a copy of the city accounts, but some well-arranged statistics.

The most logical and thorough analysis of receipts and expenditures is found in the report of Cleveland. One of the tables, given in full in the Appendix to this work, is a model of arrangement.[1] The Oakland report has a table somewhat similar giving comparative figures for a series of years. The Boston auditor's report has long maintained a uniform set of tables of actual receipts and expenditures. Indianapolis issues an excellent brief report of twelve pages.

One desirable feature not often found is the budget of the year covered by the report, arranged in parallel columns with the actual expenditures and receipts of the year. Some of the reports containing this feature have already been noticed.[2] It would be desirable to have the budget for the following year also given, in the same table if possible. In a few reports the complete budget for the following year is given.

The most carefully constructed part of a city finance report is usually the statement of the debt. The exigencies of the bond market and the suggestion of

[1] This table, as well as other features of the Cleveland report, was the work of Mr. Albert F. Crosby, who served several terms as deputy auditor. The plan of the table was suggested by the writer of this monograph, first in a published article and later in correspondence with Mr. Crosby. The plan has been more fully developed by Dr. Leo S. Rowe and adopted in part by the Boston department of statistics, a well as in various reports issued by other cities. See Quarterly Journal of Economics, x, 455 ; Annals, xii, 436.

[2] See *ante*, pp 49, 50, 53.

dealers in municipal securities have doubtless been potent factors producing this result. They may also have had something to do with another feature of the reports, namely, that two-thirds of them give a statement of the city's assets and a similar proportion give statistics of the assessed valuation of property.

Only about a third of the reports indulge in any discussion whatever. When a new official makes a report, he often has something to say or to explain. After that he prefers to let the figures talk for themselves.

In many cities statements are published monthly. New York prints a voluminous quarterly report in the *Record.* New Orleans issues a complete report twice a year, but no annual report. Kansas City (Mo.) also issues reports semi-annually.

There are numerous instances of reports being published shortly before the city election. Under the old charter New York city published in the *Record* on the last day of August of each odd numbered year, a summary of the transactions of the preceding twelve months. The charters of Burlington, Camden, and Holyoke require a similar statement a few days before the election. A general law in Michigan calls for publication in a newspaper five days before election.

Cities differ greatly in the promptness with which they issue the financial reports after the close of the fiscal year. Sometimes they require only a few days. Boston issues the auditor's report in about two months. Cleveland requires four months. The annual report of the comptroller of New York city under the old charter appeared ten months after the year had expired.

7. UNIFORMITY OF ACCOUNTS AND REPORTS.

The lack of uniformity in city finance reports is well known. It is doubtful if any two cities keep their accounts or publish their reports on the same plan. This renders it very difficult to make comparisons between cities.

City officers have made attempts to remedy this defect; but so far they have made no progress whatever. Conferences always end in the conclusion that forms of government and administration required by charter or long custom prevent uniformity of reports; a few even insist that essential conditions are so different that uniformity is not desirable. In 1896, Mr. Crosby, the deputy auditor of Cleveland, in a letter published in "The Municipality and County," suggested that a meeting of municipal accountants be called to consider this problem, and that at this meeting a national association of municipal accountants might be formed. The publisher of the periodical immediately began correspondence with other officers on the subject, but the replies were so discouraging that no further steps were taken.

The Fassett committee[1] showed clearly the impossibility of comparing the reports of any two cities in New York state, and recommended a plan to remedy it. The proposed bill required that the fiscal year of all cities coincide with the calendar year. Each city should file an annual report with the state comptroller during the month of January, and the form of the reports were specified. The state comptroller should then tabulate the reports and publish them before the adjournment of

[1] Report, pt. 5, p. 21–56.

the state legislature. This report, and the reports of later commissions in the same direction, were referred to by Governor Roosevelt in his inaugural message in 1899. He recommended the establishment of "an unsalaried state municipal board which shall have no coercive power in shaping the policy of any city, but which shall have for its duties the securing of uniformity of accounting systems in the cities of the second and third classes," and the examining of bills before the legislature.

The constitutional amendments recommended by the National Municipal League[1] provide that "every city shall keep books of account. It shall also make stated financial reports at least as often as once a year to the state controller or other financial officer, in accordance with forms and methods prescribed by him," and that there shall be an audit of city accounts by state examiners. As was shown in the first chapter,[2] state administrative supervision of city accounts has already made a small beginning, and the need of its extension can scarcely be questioned.[3] A notably successful example is found in Massachusetts. The state board of gas and electric light commissioners has prescribed forms of accounts for the cities and corporations that supply gas and electric lights, and published condensed statements in annual reports. The result is a series of reports that are reliable, intelligible and instructive, and from which it is possible to compare one establishment with another; the like does not exist in any other state.

[1] Art. iii, sec. 4.

[2] See *ante*, p. 15.

[3] See the article on "Uniformity in municipal finance," by Professor C. W. Tooke, in Municipal Affairs, ii, 194–206. The same volume, pages 413, 414, contains a bibliography of state administrative control of cities, by Professor J. W. Jenks.

During the past two years a promising movement towards uniform accounting has been in progress through the coöperation of the National Municipal League, the American Economic Association, and many other societies.

[1] This subject is well covered in the report of a special committee of the American Economic Association found in the Papers and proceedings of the thirteenth annual meeting. The report was prepared chiefly by the chairman, Mr. M. N. Baker, of the Engineering News, to whom great credit is due for his efforts to further this movement. The National Municipal League at its meeting in Rochester in May, 1901, devoted an entire session to municipal accounts and reports; there was also a special conference of committees on municipal accounting. Full reports will be found in the volume of Proceedings.

CHAPTER V.

NOTES ON THE HISTORY OF CITY FINANCES.

The financial procedure which has been described in the foregoing pages is of recent growth; it has come in the latter half of the nineteenth century along with the large cities themselves. The leading features of this growth in certain cities and sections of the country will now be noted in outline, with some reference to the materials available for its study.

I. PHILADELPHIA AND PENNSYLVANIA.

The general history of Philadelphia is well treated by two of her citizens, Edward P. Allinson, and Boies Penrose, in the volume entitled, "Philadelphia, 1681–1887," in the series of monographs published by Johns Hopkins University. But as the authors are lawyers rather than economists, the financial history of Philadelphia remains to be studied and written. The book prepared under the direction of Professor Edmund J. James by members of the senior class in the Wharton School of finance and economy, on "The city government of of Philadelphia," also makes an excellent introduction to the study of the financial system of to-day.

The act of 1712, which gave Philadelphia the power to levy taxes, contained a rudimentary budgetary system. "Six assessors were to be chosen annually by the voters of the city, who, in conjunction with the mayor, recorder, and aldermen, annually . . . were to calculate the amount of the public debt, and what sums were necessary for repairing the streets, and for the other purposes already mentioned"—work-house, wharves, and markets.

"They were to appropriate certain sums to each item, and within six weeks afterward lay the rate."[1]

Improvements followed the charter of 1789. The appropriation ordinance of 1800 levied a tax for seventeen enumerated purposes, appropriated other income for six purposes, authorized a loan for $10,000, and directed that a separate account be kept for each appropriation. But there was looseness somewhere, for in the seven years following, the floating debt grew from $4,000 to $40,000.[2] In the thirties ordinances were passed prohibiting transfers and expenditures in excess of appropriations,[3] but they availed little to keep expenditures within the income. Everything was then in the hands of the joint standing committee on finance.[4] The charter of 1854 created the office of controller, and required him to make an annual estimate of expenses to the council; but the council paid no attention to them, and the finance committee made the budget as before.[5] The act of 1879 placed the estimating of the revenue entirely in the hands of the controller, and prohibited any payments in excess of them. This checked the hitherto almost interrupted course of deficits and floating debts, but did not stop it entirely, as the controller would sometimes over-estimate the revenue.[6] The Bullitt charter which went into force in 1887, introduced the existing system[7]; it gave the controller larger power in carrying out the budget, though no more power in making it.

[1] Allinson & Penrose, Philadelphia, 28, 29.
[2] *Ibid.*, 115, 116.
[3] *Ibid.*, 126.
[4] *Ibid.*, 128.
[5] *Ibid.*, 232.
[6] *Ibid.*, 242–4.
[7] See *ante* p. 53.

The annual reports of the controller from the establishment of his office to date, together with the vast amount of other material available, make the financial history of Philadelphia a rich field for investigation. The same is true, only to a less degree, of the other large cities of Pennsylvania — Pittsburg, Allegheny, Scranton, Erie, etc.

2. BOSTON AND NEW ENGLAND.

Boston's budgetary system begins with the incorporation of the city in 1822. It was a committee system from the first and remained such with no essential change in procedure till 1885. Then some amendments to the charter gave the mayor and the auditor a preponderating share in making the budget and the exclusive control over it when once enacted. In 1898[1] a board of estimate and apportionment was established on the New York plan, composed of the mayor, the presidents of the two branches of the council and two citizens chosen by the popular vote. It is difficult to see why the auditor was excluded from this board. However the board itself was abolished within a year after its creation.

The other cities of Massachusetts have followed in the wake of Boston's development, but have not departed so far from council government. In Worcester, as provided by the charter of 1892, the council has no power to increase the estimates.

The Massachusetts cities publish fuller and better documents than the cities of any other state. The Boston documents, all features being considered, are the best in the United States and the city has recently pub-

[1] Chap. 434, acts of 1898.

lished the records of the old town of Boston before 1822. In New England outside of Massachusetts, Providence and New Haven exhibit the newer phases of financial administration and issue excellent reports. Manchester and Portland issue voluminous reports and have a financial history running back over forty years.

For the study of financial history this mine of information has been worked only in a few spots. In 1900, Mr. H. K. Stokes as a candidate for the doctor's degree from Brown University, submitted a thesis on "A century of Providence's finances," which he has been revising with a view to its publication. There are excellent general histories of Boston, New Haven, and other New England cities, but no extended study of their finances.

3. NEW YORK.

The first exhaustive treatment of the financial history of an American city was "The finances of New York city," by Dr. E. Dana Durand, which appeared in 1898.

Before 1830, according to Dr. Durand, there was in New York "no system of appropriations in advance of expenditure, either annual or special."[1] But as the state legislature retained from the beginning the privilege of making the annual tax levy, the city government had to make some estimate of expenses in order to apply for the proper tax law.

The charter of 1830 gave a beginning to real budgets for New York in these words: "Annual and occasional appropriations shall be made by proper ordinances of the common council, for every branch and object of city expenditure." The municipal convention which prepared the charter said of this section that it would "bring the whole disbursements of the city annually be-

[1] The finances of New York city, 29.

fore the Corporation and their constituents," showing that they had grasped the idea of a budget. But the intention was poorly carried out. The budget year did not coincide with the official year and the outgoing council would spend an undue proportion of the appropriations before its term expired. Large additional appropriations became the regular thing, and floating debts accumulated.[1] From 1850 to 1873 the system went through kaleidoscopic changes. In 1850 the council year was changed to coincide with the fiscal year. In 1853 transfers were prohibited.[2] In 1856 the legislature altered to suit itself the tax-levy sent up by the city council.[3] Independent commissions and boards were created with power to make their own budgets, subject only to correction by the state legislature. "In 1867 it was enacted that thereafter the estimates should be prepared by the mayor and comptroller, and after being presented to the council should be forwarded to the legislature within three weeks, whether the council had voted on them or not," and a three-fourths vote was required of the council on any appropriation or expenditure.[4] In 1870 the board of estimate and apportionment was created, with entire power over the budget.[5] The proposed charter of 1872 would have restored to the council the power to decrease the estimates.[6] But the charter enacted in 1873 gave the council "advisory power in modifying the appropriations."[7]

[1] *Ibid.*, 47-51, 56.
[2] *Ibid.*, 76, 77, 89.
[3] *Ibid.*, 127, 128.
[4] *Ibid.*, 160.
[5] The budgetary system between 1873 and 1898 is described by Durand in chapter x, and the accounting system in chapter xii.
[6] Charter, sec. 226.
[7] Durand, 88.

Then for twenty-five years the system remained without important changes. The department estimates were made in October. The board of estimate and apportionment made the provisional estimate by November first. The council might make changes by a three-fourths vote; but they could be overruled by the smaller board, and always were so overruled in the final estimate which was passed at the very end of the year. The budget was not complete: the income from liquor and theatrical licenses was disposed of separately; and all expenditures of the dock department remained outside of the budget, being met by the issue of bonds.[1]

The present charter makes only a slight change. The board of estimate and apportionment passes the estimates only once. The council may reduce the items by a three-fourths vote, but not increase them. If the mayor vetoes the action of the council, it may overrule him by a three-fourths vote, though it was five-sixths when the charter was first put into operation. As the mayor is a member of the board of estimate and apportionment, the change will probably be even less in practice than in form.[2]

The central feature of the financial administration of New York is clearly the board of estimate and apportionment, with effectual power to make and carry out the budget. Though invented by the Tweed ring to enable the inner circle of the ring to plunder the city treasury without interference from others, it has not only been retained in the city of its origin, but has been adopted extensively elsewhere. The state of New York first extended it to Troy and Albany, and later by the act of 1898, to all cities of the second class; this act embodies

[1] *Ibid.*, 97.
[2] *Ibid.*, 157.

the most approved system of financial administration now in existence, and in view of its importance the chief financial provisions are given in the Appendix to this study. Similar financial boards have been created in cities in several other states. A subordinate feature of the New York system has been still more extensively followed, namely, depriving the council of power to approve claims and order payments from the treasury and vesting it entirely in the executive officers.

In the attractiveness of their financial history and the facilities for its study, the cities of New York, other than the metropolis, rank about as follows: Albany, Buffalo, Troy, Syracuse, Utica, Rochester.

It might be mentioned here that the cities of New Jersey have been strongly influenced by the example of New York. They are not inviting, however, to the investigator in city finance; there is only an occasional feature to commend in their financial systems, and they publish few or no documents. These last statements apply to Delaware also.

4. THE SOUTH.

Baltimore, though the second in size of the southern cities, has the longest and richest history, and has developed the most advanced financial system. Dr. J. H. Hollander has made this history accessible to all in his excellent book, "The financial history of Baltimore." One of the first ordinances passed by the newly created city of Baltimore in 1797, established the offices of register and treasurer, with such duties as these titles would indicate. But in 1798 the office of treasurer was abolished and its functions added to those of the register.[1] The office of comptroller was created just fifty years

[1] Hollander, *op. cit.*, 53.

later,[1] and the board of estimates just a hundred years later, but the register has always been the chief financial officer. During the period from 1818 to 1856, budgetary procedure became sufficiently definite to be traceable;[2] as nearly everywhere else at that time the budget was framed by a committee of the council. The charter of 1897 gives the board of estimates power to make the budget, permitting the council only to reduce items. There are several provisions designed to prevent deficits; one of them is that there must be a contingent fund of $50,000.[3]

Virginia has a budgetary system for cities and towns which runs back to the first half of the nineteenth century.[4] The Richmond system in its present form is about a quarter of a century old,[5] and its working can be traced in the brief but excellent reports of the city auditor.

The city of New Orleans had regular budgets as early as 1850, and perhaps earlier.[6] In 1877 an act was passed which is evidence that deficits had become a crying evil—perhaps only during the carpet-bag regimé. The act, passed in extra session of the legislature, required that the budget of the then current year should be revised and the expenditures reduced to ninety per cent. of the estimated receipts. Thereafter not more than ninety per cent. of the estimated receipts were to be appropriated in advance, and the receipts from licenses were not to be estimated at a greater sum than was

[1] *Ibid.*, 97.

[2] *Ibid.*, 53, 54, 98, 205–7, 351–4.

[3] *Ibid.*, 364, 365.

[4] Virginia code of 1849, p. 286.

[5] Virginia code of 1887, sec. 1043.

[6] Revised statutes of Louisiana, 1856, p. 375.

received the preceding year.[1] The charter of 1882[2] allowed only seventy-five per cent. of the estimated revenue to be appropriated ; the remaining twenty-five per cent. as it came into the treasury, and all uncertain or irregular receipts must be devoted to improvements. The charter of 1896 allows the appropriation of eighty per cent. of the estimated revenue, but otherwise makes no change in the financial procedure. The council nominally directs all the financial machinery; but everything passes through the hands of the comptroller, and a strong man in that office would necessarily become the real directing power, notwithstanding the fact that city councils are generally more capable in the south than in the north.

St. Louis, the largest city in the south, has an old-fashioned and incoherent financial system. The finances are administered by committees of the council in a way which has been given up in every other great city in the United States. The reports are not satisfactory.

General laws relating to the financial administration of cities were passed by Tennesee in 1875 and 1883, by Missouri in 1885, and by Kentucky in 1894.

The southern cities publish few and meagre documents, so that information about them cannot be secured easily at a distance. But one who could use their manuscript records would doubtless find plenty of material for tracing their financial history—unless their records have been destroyed, as happened to Jacksonville by fire a few months ago.

A recent volume in the Johns Hopkins University Studies, "Studies in state taxation," edited by Dr.

[1] Acts of Louisiana, 1877, extra session, p. 107.

[2] In Vorhis' Revised laws of Louisiana, 1884, p. 371.

Hollander, will doubtless be invaluable to those who may enter upon the study of local finance in the south.

5. THE CENTRAL STATES.

Ohio has no uniform system, but clearly exhibits the general tendency, as shown in the 'charters' of three cities. The Cincinnati system was established in 1883, and is but little removed from pure council government. The Cleveland law was passed in 1891, and gives greater prominence to the executive. Dayton, in 1892, established a board of city affairs with powers much like the New York boards of estimate and apportionment.

Indiana has for several years imposed upon her large cities a modern system. The comptroller and the mayor make the budget; the council is not allowed to increase the estimates; additional appropriations may be made by a two-thirds vote on the recommendation of the comptroller; and the comptroller holds the disbursements and the contracts within the appropriations.[1]

An important chapter in the development of city budgets is found in the Illinois law for the government of cities and villages which was passed in 1872, carrying out the requirement of the constitution of 1870, that such corporations should be governed by general laws. The sections relating to the budget are given in full in Appendix F. The main features of this law had been in operation in Chicago since 1854; they were now made general over the state. But Illinois legislation has exercised a great influence throughout the northwest, and this law finds its greatest importance in the extent to which it has been imitated. Its provisions and its phraseology are found to-day more or less closely copied in the statute books of seven other states: Michigan

[1] See Appendix D.

followed it in 1873, Colorado in 1877, Wyoming in 1886, Nebraska in 1887, Dakota in 1887, (then a territory, now two states), and Montana in 1895. A search through the journals of the Illinois legislature and through contemporary newspapers, shows that these provisions regarding the budget attracted no attention whatever; they went through as reported by the senate committee on municipalities. It is fitting that the name of Mr. J. K. Edsall, the chairman of the committee, should be associated with a measure of such far-reaching importance.

Michigan, which followed the Illinois law least closely of the states above named, provided for a budget that would be complete, appropriating all the resources, including loans and the proceeds of special assessments, and covering all expenses. But this general law did not apply to charter cities, and among these are all of the large cities of the state.

Wisconsin and Iowa are nearer like Ohio and Michigan, than Indiana and Illinois. They have moderately good general laws for the government of cities, but special charters still remain in force. Minnesota and Kansas have not even made this attempt at a uniform system. Nebraska has general laws that are in reality special charters. In the light of present knowledge, these states would do well to compel all of their larger cities to come under general laws, after the plan of that for cities of the second class in New York. But the hopeful feature of the present situation, is that the multiplicity of forms of government may add to our knowledge.

The printed documents of these cities in the central states would enable the investigator to get only a very fragmentary knowledge of their financial history. But

the investigator who does his work on the ground now can have the satisfaction of getting much material on their early history from the persons who had a part in making it, and thus rescuing it from oblivion. This last statement is still more true of the cities in the next group.

6. CALIFORNIA AND HER NEIGHBORS.

California has matured a municipal system with numerous peculiarities. The legislation of 1883 is the basis of it, though San Francisco adopted a special charter in 1898. The financial history of a California city would be of great value. The published reports are excellent.

The writer has seen some indications that the neighboring states, in the mountain region as well as on the coast, have been much influenced by California's example in shaping the financial systems of their cities. But the prevalence of special charters in these states, most of them not easily obtainable, and the lack of documents of any kind in many cases have prevented fuller investigation.

7. SUMMARY.

The financial administration of the large cities of the Atlantic coast began taking on the present form about a hundred years ago; it became sufficiently differentiated to have a complete set of officers and a definite procedure during the decade preceding the Civil War; it has taken on some of the leading features during the last thirty years.

Up to thirty years ago, committees of the council directed the work down to the minutest details. Since then the largest cities have restricted the council to work that is legislative in character, committing admin-

istration to the executive officers. The executive officers frame the budget and submit it to the approval of the council; beyond granting its approval, the council has nothing to do with allowing bills or paying out money, except to regulate the procedure. There is a decided tendency to commit the administrative direction of the finances to an ex-officio board composed of the mayor, the comptroller, the treasurer, and a few other high officials.[1]

This has made the budget the central feature of each year's administration. In the beginning the only budget was the levy of a general property tax to supplement the other revenues; there was no forecast of expenditures; the council appropriated the money as the bills were presented. The budget is now an official forecast of all revenues, including the levy of taxes, and the appropriation of these revenues in specific sums for specific purposes; in some cities the budget covers the borrowing of money and the construction of permanent works, thus bringing within its scope all the financial transactions of the year. State legislatures and city councils have striven to devise a procedure that will secure the fairest and fullest and wisest consideration of all the interests of the city in the making of the budget, and after it is made, a reasonable adherence to it by all departments of the city government.

The chief accounting officer, usually called the comp-

[1] Though this board is purely an American growth and has been adopted with no thought of imitating a foreign example, yet it is strikingly like the magistracy of a German city. On this see chapter V of Albert Shaw's Municipal government in continental Europe; also an article by Professor Edmund J. James, The government of a typical Prussian city—Halle a/S, in Annals, xv, 313. One of the semi-official booklets containing the Städte-Ordnung of one or more Prussian provinces can be had for a small sum.

troller, has risen in importance. He has a large share in making the budget, sometimes by law and sometimes because no one else knows enough to do it. In the newest systems he has a check on all financial transactions of the city, including the commissioners of the sinking funds and the assessors and collectors of taxes, with large powers of supervision. The treasurer is becoming relatively less important.

Cities usually publish annual financial reports in volumes or pamphlets. These, like the accounts on which they are based, vary greatly in quality. Considerable improvement has been made recently and much more may be expected in the near future. This subject, like every other connected work with city government, is now being carefully investigated.

The financial history of our cities offers a rich field to the investigator, nearly all unworked—one might almost say, unexplored. The two books that have appeared show what can be done. Every educational institution where instruction is given in public finance can find an abundance of original sources for its students to work upon if it will turn its attention to city finance.

The financial system of a city is in many ways subordinated to, and a part of, the financial system of the state. The general subject of local finance in the United States has the state for its larger unit, and the investigation of any part of local finance must begin here. City finance, however, is of much greater importance than that of any other local body, even the state itself aside from the city. Each city, moreover, has an individuality of its own which differentiates it from all other cities, even those in the same state under the same laws. The city, therefore, must be worked out as a unit by

itself, but it can be gotten at to advantage only after working out the larger unit of the state. This is, of course, pre-eminently true of taxation. There is already a voluminous literature on state systems of taxation; that their history has not been neglected is shown by the lists of publications of the American Economic Association, Columbia University, and Johns Hopkins University.

APPENDICES.

A.—List of Cities.

All of the cities in the United States that are mentioned in the foregoing paper are found in this list. It includes all that had a population of over 80,000 in the census of 1900, besides some smaller ones; only eight were omitted that had a population of over 60,000. The selection was determined chiefly by the facility with which information about them could be obtained, though a few were omitted and a few were included to make the list more representative of the entire country.

The figures for population are taken from Census bulletin, No. 65, of the Twelfth census of the United States.

Sometimes there is no clearly defined head to the accounting system of a city. In such cases the officer of greatest importance is named, or is named first among others. Importance depends on several things: auditing claims, drawing orders on the treasury, keeping accounts of various kinds, publishing the financial report, attending to the indebtedness, preparing the annual estimates, holding expenditures within the limits set by the budget, etc.

City.	*Population.*	*Chief Accounting Officer.*
Akron, O.	42,728	Clerk
Albany, N. Y.	94,151	Comptroller
Allegheny, Pa.	129,896	Comptroller
Atlanta, Ga.	89,872	Comptroller
Augusta, Ga.	39,441	Auditor
Baltimore, Md.	508,957	Comptroller
Bangor, Me.	21,850	Auditor
Boston, Mass.	560,892	Auditor
Buffalo, N. Y.	352,387	Comptroller
Burlington, Vt.	18,640	Mayor, three auditors
Cambridge, Mass.	91,886	Auditor
Camden, N. J.	75,935	Clerk
Canton, O.	26,189	Clerk
Charleston, S. C.	55,807	Mayor
Chelsea, Mass.	34,072	Auditor
Chicago, Ill.	1,698,575	Comptroller
Cincinnati, O.	325,902	Auditor
Cleveland, O.	381,786	Auditor
Columbus, O.	125,560	Director of Accounts
Covington, Ky.	42,938	Auditor
Dallas, Tex.	42,638	Auditor

Dayton, O.	85,333	Comptroller
Denver, Col.	133,859	Auditor
DesMoines, Ia.	62,139	Auditor
Detroit, Mich.	285,704	Controller
Dubuque, Ia.	36,297	Auditor
Duluth, Minn.	52,969	Comptroller
Elgin, Ill.	22,433	Clerk
Elizabeth, N. J.	52,130	Comptroller
Erie, Pa.	52,733	Controller
Evansville, Ind.	59,007	Comptroller
Fall River, Mass.	104,863	Auditor
Ft. Wayne, Ind.	45,115	Comptroller
Grand Rapids, Mich.	87,565	Comptroller
Haverhill, Mass.	37,175	Auditor
Hoboken, N. J.	59,364	Comptroller
Holyoke, Mass.	45,712	Auditor
Indianapolis, Ind.	169,164	Comptroller
Jacksonville, Fla.	24,429	Recorder, Comptroller
Jersey City, N. J.	206,433	Comptroller
Kansas City, Kan.	51,418	Clerk
Kansas City, Mo.	163,752	Comptroller
Knoxville, Tenn.	32,637	Comptroller
LaCrosse, Wis.	28,895	Comptroller
Leavenworth, Kan.	20,735	Clerk
Little Rock, Ark.	38,307	Clerk
Los Angeles, Cal.	102,479	Auditor
Louisville, Ky.	204,731	Comptroller, Auditor
Lowell, Mass.	94,969	Auditor
Lynn, Mass.	68,513	Anditor
Manchester, N. H.	56,987	Auditor
Memphis, Tenn.	102,320	*
Milwaukee, Wis.	285,315	Comptroller
Minneapolis, Minn.	202,718	Comptroller
Mobile, Ala.	38,469	Clerk
Nashville, Tenn.	80,865	Recorder, Comptroller
Newark, N. J.	246,070	Auditor, Comptroller
New Haven, Conn.	108,027	Controller
New Orleans, La.	287,104	Comptroller
New York, N. Y.	3,437,202	Comptroller
Norfolk, Va.	46,624	Auditor
Oakland, Cal.	66,960	Auditor
Ogden, Utah	16,313	Recorder, Auditor

* A careful examination of the Acts of Tenn., 1879, ch. 11, and of 1893, ch. 95, does not make it clear whether the mayor, as the chief executive officer, the vice-mayor, or some other officer employed by the board of fire and police commissioners, actually has charge of the accounts.

Omaha, Neb.	102,555	Comptroller
Oshkosh, Wis.	28,284	Comptroller
Paterson, N. J.	105,171	Comptroller
Peoria, Ill.	56,100	Comptroller
Philadelphia, Pa.	1,293,697	Controller
Pittsburg, Pa.	321,616	Controller
Portland, Me.	50,145	Auditor
Portland, Ore.	90,426	Auditor
Providence, R. I.	175,597	Auditor
Pueblo, Col.	28,157	Auditor
Richmond, Va.	85,050	Auditor
Rochester, N. Y.	162,608	Comptroller
Rockford, Ill.	31,051	Clerk
Saginaw, Mich.	42,345	Controller
Salem, Mass.	35,956	Auditor
Salt Lake City, Utah	53,531	Recorder, Auditor
San Antonio, Tex.	53,321	Auditor
San Francisco, Cal.	342,782	Auditor
Savannah, Ga.	54,244	Clerk
Scranton, Pa.	102,026	Controller
Seattle, Wash.	80,671	Comptroller
Sioux Falls, S. D.	10,266	Auditor
Somerville, Mass.	61,643	Clerk, Auditor
Spokane, Wash.	36,848	Comptroller
Springfield, Ill.	34,159	Comptroller
St. Joseph, Mo.	102,979	Comptroller, Auditor
St. Louis, Mo.	575,238	Comptroller, Auditor
St. Paul, Minn.	163,065	Comptroller
Superior, Wis.	31,091	Comptroller
Syracuse, N. Y.	108,374	Comptroller
Tacoma, Wash.	37,714	Controller
Toledo, O.	131,822	Auditor
Troy, N. Y.	60,651	Comptroller
Vicksburg, Miss.	14,834	Clerk
Washington, D. C.	278,718	Auditor
Wheeling, W. Va.	38,878	Clerk
Wilmington, N. C.	20,976	Clerk
Worcester, Mass.	118,421	Auditor
Youngstown, O.	44,885	Clerk

B.—When the Budget year Begins.

January 1: Albany, Atlanta, Augusta, Baltimore, Charleston, Chelsea, Chicago, Cincinnati, Cleveland, Columbus, Covington, Denver, Elgin, Fall River, Ft. Wayne, Haverhill, Indianapolis, Jacksonville, LaCrosse, Leavenworth, Little Rock, Lowell, Man-

chester, Memphis, Milwaukee, Minneapolis, Nashville, Newark, New Haven, New Orleans, Newport, New York, Ogden, Omaha,, Peoria, Philadelphia, Portland (Ore.), Richmond, Rochester, Rockford, Salt Lake, Savannah, Seattle, Somerville, Spokane, St. Paul, Syracuse, Tacoma, Toledo, Troy, Vicksburg, Wheeling.

JANUARY 23 : Knoxville.

FEBRUARY 1 : Boston, Camden, Pittsburg.

FEBRUARY, 3d Monday : Duluth.

MARCH 1 : Allegheny, Bangor, Dayton, Dubuque, Springfield, Wilmington.

MARCH 16 : Youngstown.

MARCH 20 : Mobile.

MARCH 21 : Paterson.

MARCH, 3d Tuesday : Akron, Canton.

APRIL 1 : Des Moines, Evansville, Kansas City (Kan.), Portland (Me.), Pueblo.

APRIL, 1st Monday : Erie, Scranton.

APRIL, 3d Monday : Kansas City (Mo.), St. Joseph.

APRIL, 2d Tuesday : St. Louis.

MAY 1 : Camden, Dallas.

MAY, 1st Monday : Hoboken.

JUNE 1 : San Antonio.

JULY 1 : Buffalo, Detroit, Elizabeth, Los Angeles, Norfolk, Oakland, Saginaw, San Francisco, Washington.

AUGUST 1 : Grand Rapids.

SEPTEMBER 1 : Evansville, Louisville, Sioux Falls.

OCTOBER 1 : Oshkosh, Providence, Superior.

DECEMBER 1 : Cambridge, Holyoke, Jersey City, Salem, Worcester.

DECEMBER 21 : Lynn.

C.—SELECTIONS FROM THE APPROPRIATION AND TAX ORDERS OF THE CITY OF BOSTON FOR THE FINANCIAL YEAR 1897–98.

From the Auditor's Report, pp. 322, 323.

Ordered, That to meet the current expenses of performing the duties and exercising the powers of the city of Boston and the county of Suffolk, payable during the financial year 1897–98, beginning with the first day of February, 1897, and ending with the last day of January, 1898; the respective sums of money hereinafter specified be and the same are hereby appropriated for the several departments, and for the objects and purposes hereinafter stated. . . .

Ordered, That the appropriations hereinafter specified, except those for the Water Department, be met out of the money remaining as a general balance in the treasury at the close of the thirty-first day of January, 1897, not including any money raised by loan or needed to carry out the requirements of any statute, gift, trust, or special ap-

propriation, and out of the income of the current year, other than that from the waterworks, and taxes to the amount of $12,111,196.

Ordered, That the income received from the Water Works be applied, so far as required, towards meeting the appropriations hereinafter specified for the Water Department.

Ordered, That to provide the said amount of taxes, the sum of $12,111,196, be raised by taxation on the polls and estates taxable in the city of Boston. . . .

Ordered, That to provide temporarily money to meet the appropriations aforesaid, the City Treasurer issue and sell, at such times and in such amounts as he may deem best, bonds, notes, or certificates of indebtedness of the city of Boston, not exceeding seven million dollars in the total, in anticipation of the taxes of the current municipal year. . . .

Ordered, That the City Auditor, from time to time during the year, may, with the approval of the Mayor, make transfers within any department from the appropriation for one object to that for any other object; and may, with the further approval of the Committee on Finance, make transfers from the reserved fund to any appropriation for current expenses of a department; and that said Auditor may, with the approval of the Mayor, between December 1, 1897, and February 1, 1898, make transfers from any appropriation to any other appropriation, and apply any of the income and taxes not disposed of in closing the accounts for the financial year.

D.—The New York System.

Laws of New York, Chap. 182. An act for the government of cities of the second class. Became a law March 31, 1898.

The following extracts embody the leading features, relating to finance. Passages enclosed in brackets [ ] have been omitted in the law as amended. Where a small figure is inserted, the passage at the bottom of the section prefixed by the same figure has been added by an amendment. Where the small figure is enclosed within the brackets, the passage at the bottom prefixed by the same figure has been substituted for the bracketed passage. Sections 65 and 83 were amended by Chapter 581, Laws of 1899. Chapter 415, Laws of 1900, changed the wording of § 96 nearly throughout and greatly increased its length; but the sense was changed in few places, while the additions were partly to adapt the law better to local conditions and did not improve it as a model for cities in other states to follow; therefore only those alterations are given here at the end of the section which modify it in principle.

§ 64. The comptroller shall superintend the fiscal concerns of the city, and manage the same pursuant to law and the ordinances of the common council. He shall keep a separate account with every de-

partment for which funds are specially raised by tax, or for which funds are raised by assessment for local or other improvements. He shall require all drafts for the payment of any claims against the city to state particularly against which of such funds the drafts are drawn, and shall not permit any of such specific funds to be overdrawn, nor permit moneys to be drawn from one fund to pay the claims chargeable to another.

§ 65. The comptroller shall prescribe the form of all claims to be presented against the city, and the form and substance of the affidavit to be appended thereto and sworn to by the claimant. Whenever any person intends to present for payment a claim against the city, [except a claim for a fixed salary, for the principal or interest on a bonded or funded debt, or for damages caused by misfeasance or negligence,] he shall prepare and verify it, and then procure the approval as to the form thereof, in writing, of the department or officer whose action gave rise or origin to the claim, and the same shall then be presented to the comptroller for his examination and audit.[1] The comptroller shall, once in every two weeks, cause all claims which have been presented to him[2] to be printed (except the verification thereon) and numbered, and copies thereof to be distributed to the mayor, to each member of the common council, to the head of each department and to every taxpayer entitled thereto under section four hundred and seventy-two of this act. He shall take no action upon any claim until five days after such distribution, and when he shall have taken action thereon, he shall cause copies of all claims and his action upon them, with any reason for such action which he may have to give, to be sent to each, the claimant and the common council. If the claimant be dissatisfied with the audit, he may appeal to the board of estimate and apportionment, by serving notice of appeal, in writing, upon the comptroller and the common council at any time before the first regular meeting of the common council that is held after he receives the comptroller's audit. If the common council or any taxpayer be dissatisfied with such audit, it or he may appeal to the same board, on behalf of the city, in like manner, by serving notice of appeal upon the claimant and the comptroller and the treasurer within ten days after the meeting of the common council at which such claims shall have been reported by the comptroller. The board of estimate and apportionment shall make rules for the procedure upon the hearing of such appeals, and the decision and audit of that board, after hearing upon the appeal to it, shall be final and conclusive as to the amount of the claim; but if there be no appeal from the original audit, it shall in like manner be final and conclusive. Upon the appeal herein provided for, the treasurer shall take the place of the comptroller as a member of the board. The comptroller, and the board of estimate and apportionment upon an appeal to it as herein provided, shall have authority to take evidence and examine witnesses in reference to the claim, and for that purpose

may issue subpœnas for the attendance or witnesses. . . . . When a claim has been finally audited, it, with the certificate of the comptroller, or in case of appeal, with the certificate of the board of estimate and apportionment endorsed thereon, shall be filed in the office of the treasurer, and remain a record therein.[3]

[1] ; but this shall not be required as to a claim for a fixed salary, for the principal or interest on a bonded or funded debt, or for the regular or stated compensation of clerks, teachers, police officers, firemen or appointees in any of the departments, or for work performed or materials furnished under contract with the board of contract and supply, or as to claims or bills audited and allowed by the department of public instruction.

[2] for audit

[3] All claims and bills which are audited by any board or department which has power to audit bills, and all warrants and drafts drawn in payment of any claims or bills against the city, must be presented to the comptroller to be countersigned by him before they are paid from the city treasury; and the treasurer shall not pay any such claims, bills, warrants or drafts unless they are countersigned by the comptroller. A list of all bonds issued by the city shall be kept in the comptroller's office where it shall be open to the inspection of any citizen; and when any bonds are paid by the treasurer, they shall be presented by him to the comptroller for cancellation.

§ 67. The comptroller shall keep an account between the city and the treasurer, and for that purpose he shall procure from the banks in which the city's funds are deposited by the treasurer, monthly statements of the moneys which have been received and paid out on account of the city and he shall examine the treasurer's books, accounts and bank books and ascertain as to their correctness and report on the same monthly to the common council.

§ 68. The comptroller shall on or before the first day of January in each year, publish in book form or pamphlet form, verified by his oath or affirmation, a full and accurate statement of the financial condition of the city, showing the amount of receipts and expeditures of the city since the last annual report. . . . .

§ 69. The comptroller shall have, under the direction of the board of estimate and apportionment and the ordinances of the common council, the custody and management of any sinking fund provided for the payment or redemption of the city debts.

§ 83. The treasurer shall receive and have the care and custody of all the moneys of the city, and he shall pay them out as hereinafter provided.[4] All the moneys of the city received by the treasurer shall be deposited by him daily, in two or more banks designated by the board of estimate and apportionment. The interest on such deposits shall belong to the city. No money shall be drawn out of a city depository except on[5] drafts signed by the treasurer and countersigned by the comptroller, and such[5] drafts shall always be made payable to the person entitled to receive the money.[6] The treasurer shall keep a separate account with every department for which funds are specially raised by tax, or for which funds are raised by assessment for local or other improvements; and in every[5] draft drawn by him he must state particularly against which of such funds the[5] draft is drawn, [and he

shall at no time overdraw any fund, or draw upon one fund to pay a claim chargeable to another.[7]]

[4] He shall also demand, collect and receive all claims and moneys due to the city from any source.

[5] checks or

[6] unless such money be drawn for public use in the treasurer's office, in which cases the checks, so signed and countersigned, shall be made payable to the order of the treasurer.

[7] (unless the money is drawn for use in the office); he shall at no time permit any fund to be overdrawn, or draw upon one fund to pay a claim chargeable to another; and no money shall be paid out by him unless upon a bill, claim, draft or warrant audited or drawn by the proper officer, board or department and in all cases countersigned by the comptroller, except for principal and interest upon the bonds of the city.

§ 84. The moneys so deposited shall be placed to the credit of the city; and the treasurer shall keep bank books in which shall be entered his account of deposits in, and moneys drawn from, the banks in which such deposits shall be made; and he shall exhibit such books to the comptroller for his inspection at least once in every month, and oftener if required. The banks in which such deposits are made shall respectively transmit to the comptroller monthly statements of the moneys which shall be received and paid out by them on account of the city.

§ 85. The treasurer shall report to the comptroller, at the end of each day's business, by items, the moneys received.

§ 96. There shall be a board of estimate and apportionment, which shall consist of the mayor, comptroller, corporation counsel, president of the common council and the city engineer, except that when the number of subordinates or the salaries thereof in the department of any of the members of the said board, are to be fixed and determined, the treasurer shall temporarily take the place of the member, whose number, of subordinates, or the salaries thereof, is under consideration, for the purpose of fixing said salaries or number of subordinates, and for that purpose alone. The members of the board shall meet upon the call of the mayor or as directed by the board. The mayor shall be president of the board and the city clerk shall act as the secretary thereof. [Before the fifteenth day of November[8] in each year] the board shall cause the estimates submitted to it as herein provided to be printed, and shall furnish a copy thereof to any taxpayer of the city desiring one; and on that day in each year, or if that be Sunday, then on the next day, it shall meet to consider the estimates; and at such meeting or at any adjourned meeting, while such estimates are under consideration, it shall hear any taxpayer of the city in reference thereto. After such hearings, which must be concluded in the month of November, it shall make an estimate of the amounts required to pay the expenses of conducting the business of the city, in each department and office thereof, for the next fiscal year, and also to pay the principal and interest of any city indebtedness falling due during the year. After it has made such estimate, it shall submit it in

writing, with such reasons for it in detail as it may have to give, to the common council on or before the next fifth day of December; and on the fifteenth day of December thereafter, or if that be Sunday, then on the next day the common council shall convene and consider such estimate, and it shall hear any taxpayer who wishes to be heard in reference thereto, and after such hearing, which must be concluded on or before the twenty-seventh day of December, it may adopt such estimate as is submitted to it or diminish or reject any item therein contained, except such as relates to the city debt, and adopt the estimate as thus amended; but it shall not increase any item in such estimate for any department, office or purpose. When it shall have adopted the estimate as herein provided, the same shall be entered at large in its minutes and published in its proceedings; and the several sums in the final estimate so adopted shall be and become appropriated for the several departments, offices and purposes named in the estimate for the ensuing fiscal year.[9] It shall not be lawful for the city, or any officer, board or department of the city, to expend, or contract to be expended, or to incur any liability, in the current year, for a greater sum than is so estimated for such officer, board or department, and so provided for by the common council in the tax levy as aforesaid; but this shall not be held to prohibit the commissioner in charge of the health department in said city from expending such sum, or incurring such debts beyond the amount estimated and provided for said board as may be actually necessary to prevent the spread of, or to suppress any contagious or infectious disease, or any epidemic in the city. It shall not be lawful for any officer, board or department of the city to make or enter into any contract for work, labor or services, or the hiring of employes, or for the purchase of any supplies, materials or apparatus, or the making of improvements or repairs, which by the terms of such contract involves an expenditure of money or liability therefor, which after taking into account the expenditures and liabilities already incurred, shall be in excess of the amount which has been estimated and allowed to such officer, board or department for such purposes by the board of estimate and apportionment of the city, in its annual estimate of the moneys necessary to be raised in said city, and directed by the common council to be raised by tax for the current fiscal year in which such contracts shall be made. Any contract, verbal or written, made in violation of this section, shall be null and void as to the city, and no moneys belonging to the city shall be paid thereon. Any officer, or any member of any board or department of the city, making or voting for any contract prohibited by this section, or auditing any account or claim thereunder, shall be deemed guilty of a misdemeanor, and upon conviction shall be punished by a fine or imprisonment, or by both, in the discretion of the court before which such conviction shall be had. But, except as may be otherwise provided by law, or by the estimates of the board of estimate and apportionment, when any moneys or revenues are received by any

such officer, board or department from any source other than by tax, such moneys or revenues may be used and applied towards and in addition to the funds so estimated and allowed as aforesaid, in such manner as in the judgment of said officer, board or department may be most beneficial to the city.

[8] Within sixty days after the commencement of each fiscal year

[9] In any city, where at the time of the taking effect of this act, there is no provision of law for the creation or maintenance of a sinking fund, for the purpose of providing for the funded indebtedness of the city . . . . thirty per centum of all moneys or revenues, received by the city, or by any officer, board or department, thereof, from any source other than by municipal tax, shall, upon receipt of the same, be forthwith deposited in a separate account or in separate accounts in a bank or banks, designated as a city depository, to the credit of the bonded indebtedness of the city. Such deposit shall be kept as a fund separate and apart from all other funas of said city, and shall be known as the "sinking fund", and it shall remain and be used for no other purpose than for the payment of the principal of the funded indebtedness, other than that incurred for local improvements, and shall be applied and used in retiring the principal of such bonded indebtedness as it matures; and the balance of said moneys or revenues received by the city, or by any officer, board or department, from any source other than by munipcipal tax, shall be used for the purpose of reducing the tax budget of the city, in the manner following: Within sixty days after the commencemnnt of each fiscal year, except as otherwise provided herein, the board of estimate and apportionment shall make an estimate of the probable revenues to be received by the city during the said fiscal year, and also an estimate of the several sums of money which it deems necessary to pay the expenses of conducting the business of the city. . . . . The several amounts specified in such final estimate as necessary to pay the expenses of conducting the business of the city and for the various purposes contemplated by this act and otherwise by law for the fiscal year, after deducting that portion of the estimated revenues applicable for such purpose, shall constitute the tax budget. . . . . In case the revenues received by the city exceed the estimated amount of such revenues or in case there may remain any unexpended balances of the appropriations made for the support of the city government for the previous year, then such excess or such unexpended balances shall be retained by the city upon deposit and included as a part of the estimated revenues, and applied toward reducing the tax budget for the succeeding year. . . . . The city shall have the power to borrow money with which to pay the debts and expenses of the city, within the estimates, in anticipation of the receipt of the city taxes, and revenues applicable to such purpose, and the common council may provide for the issuing of certificates of indebtedness, or revenue bonds, to be signed by the mayor, and treasurer, and countersigned by the comptroller for such purpose; and such certificates or bonds shall be paid out of the moneys received as such taxes, and revenues applicable to such purposes. . . .

§ 97. The fiscal year of every city shall commence on the first day of January; and on or before the first day of November in each year all heads of departments and officers empowered by this act, or by city ordinance, to control or authorize expenditures, shall furnish to the mayor estimates in writing of the amount of expenditures for the next fiscal year, in their respective departments or offices, including a statement of the salaries of all their officers and other employes, which estimates the mayor shall lay before the board of estimate and apportionment at its first meeting thereafter. It shall be the duty of the city clerk to keep a journal of all the proceedings of the board of

estimate and apportionment and of every vote by ayes and noes taken at any meeting thereof. The minutes of each meeting shall be printed in full within six days after its adjournment and immediately distributed, one to each member of the board and of the common council, one to the head of each department and one to every taxpayer entitled thereto under section four hundred and eighty-two of this act. At the end of the year the printed minutes shall be indexed and bound in adequate number.

E.—Indiana Budget Law.

Burns, Indiana Statutes, Revision of 1894. Also found in Horner's Annotated Statutes, 1897, but the numbers of the sections begin with 6863. This is the law for Indianapolis, but almost identical sections are found in the laws for the four other cities of over 35,000.

3821. It shall be the duty of each executive department, before the commencement of each fiscal year to submit to the joint meeting of the heads of the departments and of the various boards hereinbefore provided for in Sec. 45, an estimate of the amount of money required by the respective departments for the ensuing fiscal year, stating with as great particularity as possible each item thereof. The comptroller shall at the same time submit a statement or estimate of city expenditures for other purposes, for the ensuing year, over and above the moneys proposed to be used by the various executive departments giving with as great particularity as possible each item thereof. After such meeting and reports and consultation the city comptroller shall thereupon proceed to revise such estimates for the ensuing year, and the comptroller shall then prepare a report to the mayor of the various estimated amounts registered in said comptroller's opinion for each executive department and for other city expenses, together with an estimate of the necessary percent of taxes to be levied. The Mayor shall at the next meeting of the common council present such report with such recommendations as he may see fit. It shall be the duty of the committee on finance of said common council thereupon to prepare an ordinance fixing the rate of taxation for the ensuing year, and also an ordinance making appropriation by items for the use of the various executive departments and other city purposes for the ensuing year. Said ordinance may reduce any estimated item for any executive department from the figure submitted in the report of the city comptroller, but shall not increase the same unless recommended by the mayor. Such appropriation ordinance shall thereafter be promptly acted upon by the common council. If at any time after the passage of such ordinance an emergency shall arise for further appropriations for the use of any department, as certified by such department as hereinbefore provided, or other purpose

during the year, such additional appropriation may be made on the recommendation of the comptroller by a two-thirds vote of the council.

3822. No executive department officer or employee thereof shall have power to bind such city by any contract, agreement, or in any other way to any extent beyond the amount of money at the time already appropriated by ordinance for the purpose of such department.

3823 prescribes penalties.

3825 makes the comptroller liable on his bond for the amount of any overdraft of an appropriation except when a transfer is authorized by ordinance.

F.—Illinois Budget Law.

Illinois Public Laws, 1871–2, p. 240. Approved April 10, 1872.
Revised Statutes, 1899, p. 282, §§ 89–91.
Art. VII.

Sec. 2. The city council of cities, and the board of trustees in villages shall, within the first quarter of each fiscal year, pass an ordinance, to be termed the annual appropriation bill, in which such corporate authorities may appropriate such sum or sums of money as may be deemed necessary to defray all necessary expenses and liabilities of such corporation; and in such ordinance shall specify the objects and purposes for which such appropriations are made, and the amount appropriated for each object or purpose. No further appropriations shall be made at any other time within such fiscal year, unless the proposition to make each appropriation has been first sanctioned by a majority of the legal voters of such city or village, either by petition signed by them, or at a general or special election duly called therefor.

Sec. 3. Neither the city council nor the board of trustees, nor any department or officer of the corporation, shall add to the corporation expenditures in any one year anything over and above the amount provided for in the annual appropriation bill of that year, except as is herein otherwise specially provided; and no expenditure for an improvement to be paid for out of the general fund of the corporation shall exceed in any one year, the amount provided for such improvement in the annual appropriation bill: *Provided, however*, that nothing herein contained shall prevent the city council or board of trustees from ordering, by a two-thirds vote, any improvement, the necessity of which is caused by any casualty or accident happening after such annual appropriation is made. The city council or board of trustees may, by a like vote, order the mayor or president of the board of trustees and finance committee to borrow a sufficient amount to provide for the expense necessary to be incurred in making any improvements, the necessity of which has arisen as is last above mentioned, for a space of time not exceeding the close of the next fiscal year, which sum, and the interest, shall be added to the amount authorized to

be raised in the next general tax levy, and embraced therein. (Similar provision for judgments).

SEC. 4. No contract shall be hereafter made by the city council or board of trustees, or any committee or member thereof; and no expense shall be incurred by any of the officers or departments of the corporation, whether the object of the expenditure shall have been ordered by the city council or board of trustees or not, unless an appropriation shall have been previously made concerning such expense, except as herein otherwise expressly provided.

G.—SALARIES PAID TO TREASURERS AND COMPTROLLERS.

City.	*Treas.*	*Compt.*	*City.*	*Treas.*	*Compt.*
Albany, ...	$ 3,500	$ 2,500	Milwaukee, . .	5,000	4,000
Allegheny,. . .	3,500	2,500	Minneapolis, . .	5,600	3,000
Atlanta, ...	1,000	2,500	Nashville, . . .	2,000	2,000
Augusta, . . .	1,800	1,500	New Haven, . .	1,000	3,000
Baltimore, . . .	3,000	3,000	New Orleans, . .	3,500	4,500
Boston, ...	6,000	5,000	New York, . . .	12,000	10,000
Buffalo, ...	5,000	4,000	Oakland, ...	3,000	3,000
Cambridge, . .	3,000	2,100	Peoria, ...	1,500	1,500
Camden, ...	2,500	2,500	Philadelphia, .	10,000	8,000
Chicago, . . .	*	5,000	Pittsburg, . .	4,000	4,000
Cincinnati, . . .	3,500	5,000	Portland, Me., .	2,500	1,400
Cleveland, . . .	4,000	4,000	Portland, Ore., .	3,000	3,000
Covington, . . .	2,400	1,800	Providence, . .	4,000	3,500
Des Moines, . .	1,500	1,500	Pueblo, ...	1,500	1,500
Detroit, ...	4,000	4,000	Richmond, .	2,040	2,040
Dubuque, . . .	1,600	1,400	Rochester, . .	4,500	2,800
Duluth, ...	2,000	1,900	St. Joseph, . .	2,000	1,800
Elizabeth, . . .	2,000	2,000	St. Paul, . . .	5,000	3,500
Erie, ...	3,000	1,500	Sacramento, . .	1,500	2,400
Evansville, . . .	*2,000	2,500	Salt Lake, . . .	1,800	1,500
Fall River, . . .	2,600	1,700	San Francisco, .	4,000	4,000
Grand Rapids, .	2,500	1,600	Savannah, . . .	2,500	2,000
Haverhill, . . .	2,000	1,000	Scranton, . . .	4,000	2,000
Holyoke, . . .	2,600	1,600	Sioux Falls, . .	600	1,000
Indianapolis, . .	†8,500	3,000	Spokane, . . .	1,500	1,500
Jacksonville, . .	2,000	2,000	Syracuse, . . .	†8,500	2,500
La Crosse, . . .	†3,500	1,800	Wheeling, . . .	1,000	1,500
Los Angeles, . .	2,400	3,000	Worcester, . .	3,400	2,000
Louisville, . . .	3,000	3,500	Youngstown, . .	500	1,200
Lowell, ...	2,700	1,800			

* Receives interest on deposits.

† Includes assistants.

SOURCES OF INFORMATION.

I. City Documents.

There are three kinds of documents published by cities: (a) Charters, or laws for the government of particular cities. (b) Ordinances passed by city councils. (c) Reports of city officers. The following have been used. For the sake of brevity the name of the city is in all cases omitted from the title of the document. When figures are arranged thus, "1896–7," it means that a single document covers parts of two calendar years, but "1895 to 1900 inclusive" means that there is a separate document for each year:

Akron—Reports, 1896–7, 1899–1900.

Albany—Annual report of the chamberlain, 1894 to 1897 inclusive.
Report of the trustees of the sinking funds, 1895 to 1897 inclusive.
Municipal reports, 1895.
Proceedings of the common council, 1895 to 1897 inclusive.
Supplemental report of the bonded debt, 1896, 1897.
Annual report of the comptroller, 1900.

Allegheny—Report of the city comptroller, 1896–7.

Atlanta—Annual reports. 1895, 1899.

Augusta—Official reports, 1897, 1899.

Baltimore—Annual reports of the register and commissioners of finance, 1895, 1900.
The financial reports of the mayor and city council, 1896.
Annual report of the city comptroller, 1897, 1900.

Bangor—Charter and ordinances, 1897.
Annual report of the city treasurer, 1896 to 1900 inclusive.

Boston—Revised ordinances, 1892.
Report of the city auditor, 1892–3 to 1900–1 inclusive.
Municipal register, 1895, 1897.
Valedictory address of the mayor, 1895.
Appropriation ordinances and other documents.

Buffalo—Report of the comptroller, 1894–5 to 1899–1900 inclusive.
Charter and ordinances, 1896.

Burlington—Thirty-first annual report, 1895.
An act to amend the charter, 1896.

Cambridge—An act to amend the charter, 1891.
Annual report of the city auditor, 1895 to 1899 inclusive.

Camden—Revised charter and amendments, 1887.
Fifth annual message, 1897.
Report of treasurer, 1899–1900.

Canton—Report of city officials, 1898, 1899.

Charleston—Year book, 1895, 1900.

Chelsea—City documents, 1896, 1899.

CHICAGO—Council proceedings, 1892–3, 1893–4.
Annual statement of the finances, 1893 to 1897 inclusive, 1899.
Municipal reports, 1894.
Mayor's annual message, 1895.
Bonded debt, 1899.
Comptroller's report, 1899, 1900.

CINCINNATI—Manual of the board of legislation, 1893–4.
Annual report of the finances, 1896, 1899.
City auditor's estimate of the levy, 1899, 1900.

CLEVELAND—The municipal law, 1891.
Financial reports, 1894 to 1898 inclusive.
Appropriation and tax ordinances, 1897.

COLUMBUS—An act to establish a new form of city government, 1893.
Annual report, 1896.
Annual report of the trustees of the sinking Fund, 1896.

DAYTON—Acts establishing board of city affairs, 1892.
Annual report, 1896 to 1900 inclusive.

DENVER—Department of finance, annual report, 1895, 1897.

DETROIT—Annual report, 1894–5 to 1898–9 inclusive.
Appropriations, 1897, 1899.
Estimates, 1899, 1900.

DUBUQUE—Report of the committee on finance, 1872–3, 1895–6, 1899–1900.
Council proceedings concerning tax-levy, 1898.

DULUTH—Annual report of the city comptroller and city treasurer, 1896–7.

ELGIN—Mayor's message and annual reports of city officers, 1900.
Annual appropriation bill, 1900–1901.
Officers' estimates for 1901 and city clerk's statement.

ELIZABETH—Extract from council proceedings, concerning tax-levy, 1897.

ERIE—Second annual message, 1895.
Message of the mayor and department reports, 1896–7.
Municipal manual, 1899–1900.

EVANSVILLE—Annual report of the mayor and officers, 1895–6.
Comptroller's report, 1896–7.

FALL RIVER—Auditor's report, 1895 to 1900 inclusive.

FORT WAYNE—City charter, 1893.
Annual reports of departments of the city government, 1896.

GRAND RAPIDS—Charter, 1897.
Annual reports, 1896–7, 1900–1901.

HAVERHILL—Revised ordinances, 1896.
Auditor's annual report, 1896 to 1899 inclusive.

HOBOKEN—Financial statement, 1896–7.

HOLYOKE—An act to revise the charter, 1896.
Municipal register, 1896 to 1900 inclusive.
Auditor's report, 1896-7.

INDIANAPOLIS—Comptroller's report, 1895 to 1900 inclusive.
JACKSONVILLE—Annual report of the mayor and other officers, 1894-5.
JERSEY CITY—Annual report of the city comptroller, 1896.
KANSAS CITY, KAN.—Reports, 1900.
KANSAS CITY, MO.—Charter amendments, 1892.
Message of mayor, 1894.
Six semi-annual reports of the city comptroller in the period from April, 1894 to September 1899
Charter, 1889.
KNOXVILLE—Comptroller's report of the financial condition, 1896.
LA CROSSE—Annual message of the mayor, 1896.
Annual report of city officers, 1897.
LEAVENWORTH—Annual message, 1891-2, 1895-6 to 1897-8 inclusive.
Annual report, 1893-4, 1894-5, 1896-7.
LITTLE ROCK—Report of city officers, 1894 to 1897 inclusive.
Mayor's message, 1896, 1898, 1900.
LOS ANGELES—Annual report, 1897.
LOUISVILLE—Annual reports, 1896-7, 1898-9.
LOWELL—Auditor's report, 1895 to 1899 inclusive.
LYNN—Annual report of the auditor, 1894 to 1900 inclusive.
Inaugural address of the mayor, 1899.
MANCHESTER—Annual reports, 1895, 1898.
MILWAUKEE—Comptroller's report, 1893, 1895, 1896, 1899.
Department reports, 1894.
MINNEAPOLIS—Annual reports, 1894.
Annual report of city comptroller and treasurer, 1894 to 1897 inclusive, 1899.
MOBILE—Annual reports, 1894-5.
MUSKEGON—Charter, 1897.
NASHVILLE—Charter for its government, together with reports of departments, 1886-7.
Rules and regulations governing the city council, 1895.
Annual reports, 1895, 1896.
NEWARK—Annual reports, 1895 to 1900 inclusive.
Statistical message of mayor, 1896.
Mayor's message, 1898.
NEW HAVEN—Reports of the financial department, 1895, 1896.
City year book, 1897.
Revised charter and consolidation act, 1897.
Controller's monthly report, September, 1898.
Report of bonds and notes, October, 1898.
NEW ORLEANS—Charter, 1896.
Comptroller's report, 1896.
NEW YORK—City record, various numbers.
Comptroller's report, 1891 to 1896 inclusive.
Annual report of the commissioners of taxes and assessments, 1894.
Minutes of the board of estimates and apportionment, 1894.

NORFOLK—Message of mayor, 1896, 1897.
OAKLAND—Auditor's report, 1894-5 to 1897-8 inclusive.
OGDEN—Revised ordinances, 1894; Amendments, 1897.
Officers' financial statements, rules, 1898.
OMAHA—Annual report of the board of education, 1892-3, 1893-4.
Charter for metropolitan cities, 1893, 1897.
Annual reports, 1895 to 1897 inclusive.
OSHKOSH—Annual report of the comptroller, 1891, 1892.
Annual report of the board of public works, 1892, 1893.
Charter and ordinances, 1896.
PEORIA—City comptroller's report, 1895 to 1899 inclusive.
PHILADELPHIA—City comptroller's annual report, 1893 to 1899 inclusive.
PITTSBURG—Annual report of the city controller, 1898 to 1900 inclusive.
PORTLAND, ME.—Auditor's annual report, 1896-7, 1899-1900.
PORTLAND, ORE.—Mayor's message and municipal reports, 1896.
PROVIDENCE—Auditor's report, 1894-5 to 1899-1900 inclusive.
Estimates, 1899-1900.
Monthly report of auditor and treasurer, May, 1899.
PUEBLO—City auditor's annual statement, 1896-7, 1897-8, 1899-1900.
RICHMOND—Annual report of the auditor, 1893 to 1900 inclusive.
ROCKFORD—Revised ordinances, 1892.
Reports of the city officers, 1896, 1897, 1899, 1900.
ST. JOSEPH—Laws and general ordinances, 1888.
Municipal reports, 1896-7 to 1898-9 inclusive.
ST. LOUIS—Mayor's message and documents, 1893-4, 1894-5.
Report of the comptroller, 1895-6, 1898-9.
ST. PAUL—Annual report of city officers, 1893, 1894.
Annual report of the city treasurer, 1894.
Report of the comptroller, 1894 to 1899 inclusive.
City comptroller's estimate of expenses, 1895.
SAGINAW—Annual report, 1897, 1899.
SALEM—City documents, 1896, 1898.
Report of city auditor, 1897.
SAN ANTONIO—Annual message, 1897-8.
SAN FRANCISCO—Auditor's report, 1895 to 1897 inclusive.
Charter, 1898.
SALT LAKE CITY—Mayor's message, 1896.
SAVANNAH—Annual report, 1895 to 1897 inclusive.
Tax ordinance, 1897.
SCRANTON—Manual of councils, 1897-8.
SEATTLE—Report of city comptroller, 1894 to 1896 inclusive, 1898, 1899.
SIOUX FALLS—Laws and ordinances, 1897.
SOMERVILLE—City charter, 1896.
Annual reports, 1896 to 1899 inclusive.

SPRINGFIELD—Report of officers, 1897, 1900.
SUPERIOR—Charter and ordinances, 1896.
SYRACUSE—Proceedings of common council, 1895 to 1899 inclusive.
Common council manual, 1897–8.
Comptroller's report, 1900.
Appropriations, 1900.
TACOMA—Controller's report, 1894 to 1898 inclusive.
TROY—Report of the comptroller, 1894 to 1897 inclusive.
VICKSBURG—Charter, 1884.
Clerk's report, 1896.
WASHINGTON, (District of Columbia)—Report of the auditor, 1886–7, 1887–8, 1889–90 to 1897–8 inclusive.
Act providing a permanent form of government for the District of Columbia, 1895.
WHEELING—Annual statement of receipts and expenditures, 1896,
Budget ordinance, 1897.
Tax ordinance, 1900.
Appropriations, 1900-1901.
WILMINGTON—Mayor's message, 1901.
WORCESTER—Table showing population, valuation, taxes, etc., 1850–89, 1850–98.
Laws and revised ordinances, 1895.
Auditor's annual report, 1895 to 1897 inclusive, 1899.
Estimates, 1896, 1900.
YOUNGSTOWN—Annual report, 1895–6, 1896–7, 1899–1900.

2. LAWS AND OTHER DOCUMENTS PUBLISHED BY STATE AUTHORITY.

In 1897 the writer examined the latest compilations or codes of state laws existing at that time, and made notes on the provisions relating to city finances. The session laws that were later than the compilations were also examined; in some cases earlier session laws were examined when it was desired to trace any provision through its various changes. A list of these volumes of laws would be of little use in this place and is therefore not included.

If this classification of sources of information were based on the nature of the material instead of the form in which it is found or the authority which publishes it, the city charters named in the first and last of these four groups of sources would come in this group.

Two state reports require mention:
NEW JERSEY—Annual report of the comptroller, 1897.
NEW YORK—Senate documents, 1891, No. 80, V. Report of committee (Fassett) to investigate city government.

3. PERSONAL INFORMATION.

The writer has visited in person the following twenty-four cities and interviewed one or more officials in each: Boston, Cambridge, Chelsea, Chicago, Dubuque, Duluth, Elgin, Jersey City, LaCrosse, Lowell,

Lynn, Manchester, Milwaukee, Minneapolis, Newark, New York, Oshkosh, Philadelphia, Providence, Rockford, Salem, Somerville, St. Paul and Superior. Visits for other purposes to eighteen other cities have yielded some advantage.

From all except twenty-seven of the cities named in Appendix A the writer has received considerable information through personal letters from city officials. Some of the twenty-seven were cities visited in person and from which it was not therefore necessary to ask for information by letter; others, in answer to inquiries, sent documents which contained more or less of the data asked for. There is only one city in the list of one hundred and two from which the writer has been unable to get any response whatever.

It is a matter of great regret to the writer that he has been so situated during the past six years as to be unable to keep in touch with others who are pursuing the same or allied lines of study. There are a few friends, however, to whom credit should be given. Dr. G. O. Virtue, of the State Normal School at Winona, Minn., and Professor F. W. Taussig, of Harvard, the latter as chairman of the Publication Committee of the American Economic Association, read the manuscript when partly completed and made some suggestions on points of detail. Dr. H. A. Millis, of the John Crerar Library, Chicago, gave some information about Chicago. Professor John A. Fairlie, of the University of Michigan, and Mr. Edward J. Dempsey, of Oshkosh, read the proofs, making numerous corrections and advising alterations. The New York State library furnished some important data and verified the references to the statutes, while the sociology librarian, Dr. Robert H. Whitten, made corrections and suggested alterations in the proof.

4. Miscellaneous Books.

Access to books has been as restricted as the opportunities to associate with other students of city government or public finance. The writer has been almost wholly dependent for data, other than those afforded by the sources mentioned above, and for suggestions regarding perspective, selection of material, arrangement, etc., upon such books and periodicals as he could purchase. The following have been useful, though to some of them few or no references are made.

In two instances the writer has used copies of charters that were published neither by state authority nor by city authority. One of these is the charter of the city of New York which has been published in a quarto pamphlet in repeated editions from 1897 to 1901 by the Brooklyn Daily Eagle. The other is a pamphlet compiled by Professor Edmund J. James, of the University of Chicago, and published by the University, containing the early charters of Chicago.

Adams, H. C.—Public debts. Appleton. 1895. The science of finance. Holt. 1898.

Allison and Penrose—Philadelphia, 1681–1887. The Johns Hopkins Press. 1887.

BASTABLE, C. F.—Public finance. 2d ed. Macmillan. 1895.

BOECKH, AUGUSTUS—The public economy of Athens, translated from the German. John Murry, London. 1828.

DURAND, E. DANA—The finances of New York city. Macmillan. 1898.

DILLON, JOHN F.—Commentaries on the law of municipal corporations. 4th ed. 1890.

ELY, RICHARD T.—Taxation in American states and cities. Crowell. 1888.

GREEN, MRS. J. R.—Town life in the fifteenth century. Macmillan. 1894.

GOODNOW, FRANK J.—Municipal home rule. 1895. Municipal problems. Macmillan. 1897.

GRANT, JOHN H.—State supervision of cities. Publications of Michigan political science association, ii, no. 4. Ann Arbor, Mich. 1896.

HOLLANDER, J. H.—The financial history of Baltimore. The Johns Hopkins Press. 1899.

HOWARD, GEO. H.—Local constitutional history of the United States. The Johns Hopkins Press. 1889.

HUMBERT, GUSTAVE—Essai sur les finances et la comptabilité publique ches les romains. Ernest Thorin. Paris. 1886.

MACK, HEINRICH—Die Finanzverwaltung der Stadt Braunschweig. Koebner, Breslau. 1889.

MACPHERSON, F. H.—Municipal accounting. The book-keeper publishing co., Limited, Detroit, Mich. 1901.

PLEHN, CARL C.—Introduction to public finance. Macmillan. 1896.

ROWE, LEO S.—Die Gemeindefinanzen von Berlin und Paris. Fischer, Jena. 1893.

SCHÖNBERG, GUSTAV—Finanzverhältnisse der Stadt Basel. H. Laupp-'schen Buchhandlung, Tübingen. 1879.

SELIGMAN, EDWIN R. A.—Finance statistics of the American commonwealths. Publications of the American Statistical Association, vol. i, no. 8.

SHAW, ALBERT—Municipal government in Great Britain. 1895. Municipal government in continental Europe, 1897. Century.

SPARLING, S. E.—Municipal history and present organization of the city of Chicago. Bulletin of Univ. of Wis., No. 23, Madison, Wis. 1898.

STEFFENHAGEN, H. (ed.)—Städte-Ordnung fur die Provinzen Preussen, Brandenburg, Pommern, Schlesien, Posen und Sachsen. J. J. Heines Verlag, Berlin. 1890. Also similar booklets for Hannover, Westphalia, the Rhine Province, and Schleswig-Holstein.

STOURM, RENÉ—Le budget. 3me ed. Guillaumant, Paris. 1896.

WAGNER, ADOLPH—Finanzwissenschaft. I, 3d ed. C. F. Winter-'sche Verlagshandlung, Leipsig. 1877.

WHARTON SCHOOL, UNIV. OF PENN.—City government of Philadelphia. 1893.

WILCOX, DELOS E.—The study of city government. Macmillan. 1897.

WILGUS, J. A.—Evolution of township government in Ohio. American Historical Association. 1896.

5. PERIODICALS AND SERIALS.

ANNALS of the American academy of political and social science. Philadelphia. Vols. IX to XVIII.

BULLETIN of the department of labor. Nos. 24 and 30, containing statistics of cities. Washington.

JOHNS HOPKINS University Studies in historical and political scicnce. The Johns Hopkins Press, Baltimore, Md.

Vol. I, No. 3. Local government in Illinois. Albert Shaw.
Local government in Pennsylvania. E. R. L. Gould.
No. 5. Local government in Michigan and the Northwest. Edward W. Bemis.

Vol. II, No. 10. Town and county government in the English colonies of North America. Edward Channing.

Vol. III, Nos. 2, 3. Local institutions of Virginia. Edw. Ingle.
Nos. 5–7. Local institutions of Maryland. L. W. Wilhelm.

Vol. V, No. 3. City government of Boston. James M. Bugbee.
No. 4. City government of St. Louis. Marshall S. Snow.

Vol. VII, Nos. 2, 3. Establishment of municipal government in San Francisco. Bernard Moses.
No. 4. Municipal history of New Orleans. Wm. W. Howe.

Vol. VIII, No. 8. Local government in Wisconsin. D. E. Spencer.

Vol. XI, Nos. 11, 12. Local government in the South and West. Edward W. Bemis and students.

Vol. XIV, No. 2. City government of Baltimore. T. P. Thomas.

MUNICIPAL AFFAIRS—Reform Club, Committee on city affairs. New York. 5 vols.

NEWSPAPERS—Clippings were secured through a clipping bureau.

NEW YORK STATE LIBRARY BULLETINS—Numbers 7 to 11 of the annual comparative summary and index of legislation by states.

PROCEEDINGS of the national conference for good city government. National Municipal League. Philadelphia. 1894–1900. 7 vols.

ANALYSIS [illegible] FUNDAMENTAL PURPOSES.

	[illegible]XTRAORDINARY [illegible]ISBURSEMENTS.	ASSETS.	LIABILITIES.
GENERAL GOVERNM[illegible]			
a. EXECUTIVE.			
Mayor and Board[illegible]	-----	1,095 15	--------------
b. LEGISLATIVE.			
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